NOVARTIS AG
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SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
Pursuant to Rule 13a-16 or 15d-16 of
the Securities Exchange Act of 1934

Report on Form 6-K dated February 6, 2004
(Commission File No. 1-15024)

Novartis AG

(Name of Registrant)

Lichtstrasse 35
4056 Basel
Switzerland

(Address of Principal Executive Offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F: ý Form 40-F: o

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Yes: o No: ý

Enclosures:

Novartis AG Annual Report 2003 to Shareholders

[insert invitation here]

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Financial Highlights

Key ratios

	2003	2002
Return on sales (%)	23.7	24.4
Return on average equity (%)	17.1	17.7
Group research and development as % of sales	15.1	13.6
Debt/equity ratio	0.20:1	0.20:1
Current ratio	2.4:1	2.5:1

Share information

	2003	2002
Average number of shares outstanding	2 473 522 565	2 515 311 685
Earnings per share (USD)	2.03	1.88
Operating cash flow per share (USD)	2.68	2.08

	2003	2002
American Depositary Share (ADS) price at end of year (USD)	45.89	36.73
Share price at end of year (CHF)	56.15	50.45
Dividend per share[1] (CHF)	1.00	0.95
Pay-out ratio based on outstanding shares (%)	39	36

(1) 2003: Proposal to the Annual General Shareholder Meeting

News in 2003

Group sales	Strong volume growth in Pharmaceuticals and Sandoz: Group sales up 19% in USD (+11% in local currencies); Novartis is one of the fastest growing top-ten pharmaceutical companies
Pharmaceuticals	Pharmaceuticals steadily gaining market share in all major markets, with sales growth of 18% in USD, driven by the Cardiovascular and Oncology franchises
Consumer Health	Consumer Health ongoing sales up 24% driven by 60% sales growth at Sandoz
New drugs	With seven major approvals and 79 projects in clinical development and registration Novartis has one of the leading pipelines in the industry
Operating income	Double-digit (16%) rise in full-year operating income is driven by volume expansion, product mix enhancements and productivity gains
Net income	Net income is up 6% to a new record level of USD 5.0 billion, lifting earnings per share by 8%
Dividend	Based on solid performance, a dividend increase of 5% to CHF 1.00 per share will be proposed to shareholders

Letter from Daniel Vasella

Dear Shareowner

It gives me great pleasure to be able to present record results again. Today, Novartis is one of the fastest growing global pharmaceutical companies. Thus, we have overtaken competitors and are now in fifth position in the Global Pharmaceuticals sector. At the same time, we have gained market segment share in all of our other businesses. Let me summarize the key results in 2003:

Increase in group sales of 19% to USD 24.9 billion (+11% in local currencies).

Expansion of operating income to USD 5.9 billion (+16%), of net income to USD 5.0 billion (+6%) and of earnings per share by 8% to USD 2.03.

Growth of free cash flow by 23% to USD 3.6 billion.

Pharmaceutical sales climbed 18% with the especially successful enlargement of our product line in Oncology (+36%) and Cardiovascular medicine (+36%), combined with a further rejuvenation of our product portfolio.

Dynamic growth of our Consumer Health business (+24%) and particularly of our Generics business, Sandoz (+60%).

Expansion of our development pipeline to 79 projects, of which 34 are in late stage development or registration.

Extension of our access to medicine programs for uninsured and indigent patients suffering from leprosy, malaria, tuberculosis, chronic myeloid leukemia and other diseases.

We attribute our success to our clear focus on sustainable growth, our corresponding, consistently innovation-oriented strategy, and the capabilities and commitment of our associates. Accordingly, we see our investments in Research and Development as being of primary importance. Last year we increased our investment in Research and Development by 32%. In Pharmaceuticals alone, we invested morethan USD 3 billion in 2003 to discover and develop innovative medicines, and to improve treatments for patients. The first phase in the buildup of our new research center in Cambridge, Massachusetts was successfully completed. Nearly 400 scientists are already working in the new laboratories. In 2004, we will continue the expansion. This demands continued over-proportional investments that will yield mid- to long-term returns.

Our development pipeline is among the best in the world, based on quality and productivity. Most promising are our novel compounds for patients with diabetes, hypertension, cancer and osteoporosis, and for transplantation medicine which will, if successful, significantly improve treatments and thus have an attractive commercial potential.

In 2003, we received first major market approvals for *Certican* and *Myfortic* for use in transplantation medicine, *Stalevo* for the treatment of Parkinson's disease and *Xolair* for allergic asthma therapy in the US. Furthermore, *Prexige,* a new treatment for pain and osteoarthritis, was approved in the UK. Its approval in the US is as yet uncertain, pending results of additional trials.

To complement our own research activities, we have established several new collaborations with universities and biotechnology companies. The acquisition of 51% of the capital stock of Idenix Pharmaceuticals Inc., a biotechnology company based in Boston, Massachusetts, offers us rapid entry into anti-viral research, and access to development compounds for the treatment of hepatitis B and C. Additionally, we acquired the commercial rights for *Lucentis* outside the US, Canada and Mexico. In combination with our product *Visudyne,* this drug may improve the treatment options in age-related macular degeneration, a frequent cause of blindness in adults. We also obtained rights to a promising cancer drug, *Gimatecan,* from Sigma Tau and the drug *Enablex/Emselex* for the treatment of urinary incontinence from Pfizer.

Our market position improved in most countries, most notably in the US. This we achieved thanks to the success of our blood pressure-regulating medicines *Diovan* and *Lotrel;* our cancer drugs *Gleevec/Glivec* and *Zometa; Elidel,* our eczema treatment; as well as to the attractive sales of *Zelnorm/Zelmac,* our irritable bowel treatment, to name just some of our most important products.

The dynamic growth of our Generics business is primarily based on the success of AmoxC, loratadine and omeprazole in the US market. The development of activities at Lek, a generics company we acquired in 2002, also exceeded expectations.

In light of the increasing age of our society, and the associated rise in healthcare expenditure, generics will play an even more important role as a cost effective therapeutic option. These cost savings can and should be used to provide patients with innovative, patent-protected medicines that

have improved efficacy and safety profiles.

Unavoidably, governments, insurers and employers will continue to put pressure on the price of pharmaceuticals, despite the fact that the overall cost of drug therapies amounts to less than 20% of all healthcare-related costs in most countries. Also, medicines not only extend patients' life expectancy, but also improve their quality of life and reduce their lost working hours and absence from work due to illness.

Increasingly, health is regarded as a fundamental right. The introduction of prescription drug coverage into the US Medicare insurance system for senior citizens must also be seen from this perspective.

The enlargement of the EU from 15 to 25 member states will not only improve the standard of living in the new member states, but also lead to demands for better health-related products and services. A similar trend can be observed in countries with rapidly growing Gross National Product (GNP), such as China and India. In each of these countries, the new middle class already comprises more than 150 million people.

A fundamentally different situation prevails in the poorest countries, for example in parts of Africa, where HIV/AIDS, malaria, tuberculosis and various other infectious diseases kill millions of people every year. The pharmaceutical industry is neither the cause of this plight, nor can it prevent it on its own. Nevertheless, the pharmaceutical industry is able and ready to make a valuable contribution. Accordingly, at the World Trade Organization (WTO) negotiations in Cancun, the industry did not insist on patent rights for essential medicines in the poorest countries. Novartis, however, has gone even further. Thanks to our good results last year we were able to provide, at no charge, all the drugs used by the World Health Organization (WHO) for the treatment of leprosy patients worldwide. Furthermore, we are providing the WHO with our new malaria drug *Coartem* at cost. Recently, we additionally committed to supply medicines for the treatment of 500 000 tuberculosis patients over the next five years, free of charge.

We continue our endeavors to fulfill every regulation, no matter how work-intensive or formalistic it may be. In 2004 we will comply with every part of the Sarbanes-Oxley Act, including Section 404, thus fulfilling every demand made by US authorities. Despite all internal and external controls, and our declared intention and related efforts to comply with all laws and regulations, it is unlikely given our 78 000 associates that we will be successful everywhere at all times. But at a minimum, the transparency of our report will enable you, our shareowners, to assess the current situation, risks and opportunities of your company. I can assure you that the Board of Directors and I are fulfilling our leadership and controlling responsibilities to the best of our knowledge and abilities.

At the next Annual General Shareholder Meeting, Heini Lippuner and Walter Frehner will retire from the Board. After last year's meeting, you, the shareholders, have already prepared the succession. Professor Srikant Datar is professor of accounting at Harvard Business School, and Dr.-Ing. Wendelin Wiedeking is Chairman of the Executive Board at Porsche AG.

Here, I also wish to express my deep regrets regarding the death of our honorary Chairman, Dr. Louis von Planta, who played a decisive role in the founding of our company.

Finally, I would like to take this opportunity to thank everyone who contributed to last year's good results especially all our associates. And I wish to thank you, as shareowners of Novartis, for your loyalty and confidence.

Daniel Vasella, MD
Chairman and CEO

Pharmaceuticals

Industry-leading growth **Novartis one of the fastest-growing companies in the pharmaceutical industry, gaining market segment share and climbing one notch, to fifth place in global rankings.**

Key growth drivers **The Cardiovascular and Oncology franchises;** ***Diovan*** **becomes the world's leading angiotensin receptor blocker (ARB).**

Strong patent position **Low exposure to generic competition during the next five years.**

Sustained research and development productivity **Seven major approvals during 2003; 11 new medicines launched in the US since 2000.**

Deep pipeline again rated as one of the industry's strongest by financial analysts **79 projects in clinical development or registration.**

Research and Development spending reaches 19% of sales **Reflecting high-level investment in the new US research center at Cambridge, Massachusetts and the addition of new development projects.**

	2003 USD millions	2002 USD millions	Change in USD %
Sales	**16 020**	13 528	18
Operating income	**4 423**	3 891	14
Research and development	**3 079**	2 355	31
Research and development as % of sales	**19.1%**	17.3%	
Free cash flow	**4 690**	4 418	6
Net operating assets	**8 969**	8 041	12
Investments in tangible fixed assets	**771**	505	53

Sales by region

	2003	2002	% change
Number of employees	**44 640**	44 110	1

Top ten products	2003 sales in USD millions	Change in USD %	Change in local currencies %
Diovan/Co-Diovan	**2 425**	**46**	**38**
Gleevec/Glivec	**1 128**	**84**	**68**
Neoral/Sandimmun	**1 020**	**-2**	**-10**
Lamisil (group)	**978**	**12**	**5**
Zometa	**892**	**83**	**74**
Lotrel	**777**	**20**	**20**
Lescol	**734**	**27**	**18**
Sandostatin (group)	**695**	**15**	**7**
Voltaren (group)	**599**	**1**	**-6**
Cibacen/Lotensin/Cibadrex	**433**	**-6**	**-9**

The Novartis Pharmaceuticals Division is a world leader in the discovery, development, manufacture and marketing of prescription medicines. Our goal is to provide a broad portfolio of innovative, effective and safe products and services to patients through healthcare professionals around the world. This goal is supported by a dedicated organization operating in more than 140 countries.

Development Pipeline

The Novartis pipeline holds a broad stream of promising future products, with 64 projects in Phase II and beyond as of December 2003, including both new molecular entities and additional indications or formulations for marketed products.

Compound

Molecular entity.

Generic name

Designation assigned to compound.

Indication

A disease or condition for which a particular drug is believed to be an appropriate therapy.

Phase II

Clinical trials in patients to determine dose ranging, safety and efficacy.

Phase III

Large clinical trials to determine definitive safety and efficacy in patients.

Filed

In registration.

Therapeutic area	Project/compound	Generic name	Indication
Cardiovascular and metabolism	***Diovan***	valsartan	Congestive heart failure
	Diovan VALIANT	valsartan	Post-myocardial infarction
	Lotrel 10-40, 5-40	benazepril, amlodipine	Hypertension
	Diovan VALUE	valsartan	High risk hypertension
	Navigator*	valsartan, nateglinide	Progression to type-II diabetes
	Sandostatin LAR	octreotide acetate	Diabetic retinopathy, other indications
	***Lotrel* ACCOMPLISH**	benazepril, amlodipine	High risk hypertension
	SPP100	aliskiren	Hypertension
	LAF237		Type-II diabetes
	NKS104	pitavastatin	Dyslipidemia
Oncology	***Zometa***	zoledronic acid	Hypercalcemia of malignancy (HCM)
	Femara	letrozole	Breast cancer (extended adjuvant therapy)
	Femara	letrozole	Breast cancer (early adjuvant therapy)
	ICL670		Chronic iron overload
	PTK787	vatalanib	Solid tumors
	Gleevec/Glivec	imatinib mesylate	Solid tumors
	OctreoTher	edotreotide	Somatostatin receptor positive tumors
	EPO906		Solid tumors
	PKC412	midostaurin	Acute myeloid leukemia
	SOM230		Acromegaly, GEP neuroendocrine tumors
	LBQ707	gimatecan	Solid tumors
	RAD001	everolimus	Solid tumors
Nervous system	***Focalin LA***	dexmethylphenidate	Attention deficit disorders
	ILO522	iloperidone	Schizophrenia
	Exelon	rivastigmine	Non-Alzheimer's dementia
	Exelon TDS	rivastigmine	Alzheimer's disease
	Trileptal	oxcarbazepine	Neuropathic pain
	TCH346		Parkinson's disease
	TCH346		ALS[(1)]
	AMP397		Epilepsy
	SAB378		Chronic pain
	LIC477	licarbazepine	Bipolar disorder
	FTY720		Multiple sclerosis
Transplantation, immunology	***Certican***	everolimus	Transplantation
	Myfortic	mycophenolate sodium	Transplantation
	FTY720		Transplantation
Dermatology	***Lamisil***	terbinafine	Tinea capitis
	Lamisil	terbinafine	New Oral Formulation (NOF) onychomycosis
	ASM981	pimecrolimus	Inflammatory skin diseases

Therapeutic area	Project/compound	Generic name	Indication
	***Elidel* (ASM981)**	pimecrolimus	Inflammatory skin diseases
Respiratory	***Foradil***	formoterol	Multi dose dry powder inhaler for asthma
	Xolair	omalizumab	Asthma
	QAB149		Asthma/COPD(2)
	ASM981	pimecrolimus	Asthma
Arthritis, bone, gastrointestinal diseases, HRT and urinary incontinence	***Zelnorm/Zelmac***	tegaserod	Chronic constipation
	Enablex/Emselex	darifenacin	Overactive bladder
	Prexige	lumiracoxib	Osteoarthritis, rheumatoid arthritis, pain
	Zelnorm/Zelmac	tegaserod	Irritable bowel syndrome
	ZOL446	zoledronic acid	Post-menopausal osteoporosis
	ZOL446	zoledronic acid	Paget's disease
	Zelnorm/Zelmac	tegaserod	Functional dyspepsia
	Zelnorm/Zelmac	tegaserod	Gastroesophageal reflux disease
	ZOL446	zoledronic acid	Rheumatoid arthritis
	RAD001	everolimus	Rheumatoid arthritis
	AAE581		Osteoporosis
	SMC021	calcitonin	Osteoporosis
	RGN303		Rheumatoid arthritis
Ophthalmics	***Visudyne***	verteporfin	AMD(3) (occult)
	Visudyne	verteporfin	AMD(3) (minimally classic)
	Lucentis	ranibizumab	AMD
	Elidel	pimecrolimus	Ophtha indications
	PIR335	pirenzapine	Myopia
Infectious diseases	**LDT600**	telbivudine	Hepatitis B
	LDC300	valtorcitabine	Hepatitis B

* Navigator trial examining combination therapy of *Diovan* and *Starlix.*

(1) Amyotrophic lateral sclerosis.

(2) Chronic obstructive pulmonary disease.

(3) Age-related macular degeneration.

Mechanism of action	Formulation	Planned filing dates	Phase I	Phase II	Phase III	Filed
Angiotensin-II receptor blocker	Oral	Filed (EU)				
Angiotensin-II receptor blocker	Oral	Filed				
ACE inhibitor/calcium channel blocker	Oral	Filed (US)				
Angiotensin-II receptor blocker	Oral	2004				
	Oral	>2006				
Growth hormone + IGF-1 inhibitor	Intramuscular	2005				
ACE inhibitor/calcium channel blocker	Oral	>2006				

Mechanism of action	Formulation	Planned filing dates	Phase I	Phase II	Phase III	Filed
Renin inhibitor	Oral	2005				
Dipeptidylpeptidase (DPP-4) inhibitor	Oral	2006				
HMG CoA reductase inhibitor	Oral	>2006				
Bisphosphonate, osteoclast inhibitor	Intravenous	Filed (Japan)				
Non-steroidal aromatase inhibitor	Oral	2004				
Non-steroidal aromatase inhibitor	Oral	2005				
Iron chelator	Oral	2005				
Tyrosine kinase inhibitor	Oral	2005				
Tyrosine kinase inhibitor	Oral	tbd				
Radiation therapy	Intravenous	tbd				
Microtubule depolymerization inhibitor	Intravenous	>2006				
Protein kinase inhibitor	Oral	2006				
Somatostatin (sst)1/2/3/5 binder Int and hormone inhibitor	ravenous	2005				
Topoisomerase-I inhibitor	Oral	>2006				
Growth-factor-induced cell proliferation inhibitor	Oral	2006				
Dopamine transport blocker	Oral	2004				
Mixed 5HT2A/D2 antagonist	Oral	tbd				
Cholinesterase inhibitor	Oral	tbd				
Cholinesterase inhibitor	Transdermal	2006				
Voltage dependent sodium current blocker	Oral	tbd				
Neuronal GAPDH dep. programmed cell death inhibition	Oral	>2006				
Neuronal GAPDH dep. programmed cell death inhibition	Oral	>2006				
AMPA receptor antagonist	Oral	>2006				
Cannabinoid-1 receptor agonist	Oral	>2006				
Voltage dependent sodium current blocker	Oral	>2006				
Sphingosine-1-phosphate receptor agonist	Oral	>2006				
Growth-factor-induced cell proliferation inhibitor	Oral	Filed (US)				
Inosine monophosphate dehydrogenase inhibitor	Oral	Filed				
Sphingosine-1-phosphate receptor agonist	Oral	2005				
Fungal squalene epoxidase inhibitor	Oral	tbd				
Fungal squalene epoxidase inhibitor	Oral	2004				
T-cell and mast cell inhibitor	Oral	tbd				
T-cell and mast cell inhibitor	Ointment	2006				

Mechanism of action	Formulation	Planned filing dates	Phase I	Phase II	Phase III	Filed
Long-acting beta-2 agonist	Dry powder for inhalation	Filed				
Anti-IgE monoclonal antibody	Subcutaneous	2004 (EU)				
Long-acting beta-2 agonist	Inhalation	>2006				
T-cell and mast cell inhibitor	Oral	tbd				
5HT4-receptor agonist	Oral	Filed (US)				
M3 antagonist	Oral	Filed				
Cyclo-oxygenase-2 inhibitor	Oral	2005 (US)				
5HT4-receptor agonist	Oral	2004 (EU)				
Bisphosphonate: osteoclast inhibitor	Intravenous	>2006				
Bisphosphonate: osteoclast inhibitor	Intravenous	2004				
5HT4-receptor agonist	Oral	2005				
5HT4-receptor agonist	Oral	2006				
Bisphosphonate: osteoclast inhibitor	Intravenous	>2006				
Growth-factor-induced cell proliferation inhibitor	Oral	>2006				
Cathepsin K inhibitor	Oral	>2006				
Regulator of calcium homeostasis	Oral	>2006				
IL-1 alpha and IL-1 beta inhibitor	Intravenous	>2006				
Photosensitizer for photodynamic therapy	Intravenous	2006 (US)				
Photosensitizer for photodynamic therapy	Intravenous	>2006				
VEGF blocker	Intra-vitreal	2006				
T-cell and mast cell inhibitor	Eye drops	>2006				
Selective MI-muscarine antagonist	Ocular	tbd				
Viral polymerase inhibitor	Oral	2005				
Viral polymerase inhibitor	Oral	2006				

Development

Giving Thalassemia Patients a Choice

Mario Rossi* is a 27-year old computer consultant who lives in Torino, Italy. His job forces Mario to travel often and he recently moved out of the family home, into an apartment of his own.

*

Not the patient's real name. Use of a pseudonym is required under Italian patient-privacy laws.

That independence was hard-won. Because Mario suffers from beta-thalassemia, an inherited genetic defect that damages red blood cells in his body, he needs a blood transfusion every month to survive. Yet repeated transfusions have a serious side-effect a potentially fatal build-up of iron in the body. To control that iron overload, Mario took a Novartis drug called *Desferal* for most of his life.

Launched more than 40 years ago *Desferal* remains the gold standard of iron chelation removing excess iron and extending the lives of tens of thousands of thalassemia patients from Torino to Tehran. The treatment is cumbersome, however, and many patients aren't able to adhere to the lifelong regimen of painful infusions via a portable pump for up to 12 hours a day, five to seven days per week.

Novartis scientists have spent decades and tens of millions of dollars to develop a more convenient alternative. Success finally seems to be in sight. A new iron chelator which can be taken as a dispersible tablet has reached the final, pivotal phase of clinical testing. If ongoing trials are successful for the new medicine, still known only by its research number ICL670, regulatory applications could be submitted as early as next year, followed by launches in major markets during 2006.

Mario has been taking ICL670 since September 2001, when he joined an early clinical study being conducted at the Thalassemia Center at Ospedale Regina Margherita in Torino.

"It's completely changed my life," he says.

The daily drill of *Desferal* therapy made it impossible for Mario to travel as he does today or to even consider moving from home where his parents played a crucial role in his care.

"It's very difficult to sleep with an infusion line attached to a *Desferal* pump," he says. And there were frustrating occasions when he'd wake and realize that after mixing the *Desferal* solution and finishing elaborate preparations with the infusion line the preceding evening, he'd forgotten to switch on the pump, losing a treatment cycle.

"If I had to go back to *Desferal*, I'm not sure I could manage," Mario says, with a grimace.

A Distant Dream

Dr. Antonio Piga, Professor of Medicine at the Department of Pediatric Hematology, University of Torino, has watched Mario and hundreds of other patients struggle with *Desferal* treatment. Part of the problem is that the benefits of therapy don't show immediately. Damage from iron overload to organs such as the liver or heart takes up to 15 years to become apparent but by the time symptoms appear, the consequences are virtually impossible to reverse. To address the crucial, mental dimension of treatment compliance, Dr. Piga added a psychologist to his staff a few years ago.

In all, Dr. Piga has 45 patients currently participating in ICL670 trials. "Every patient and family who has experience with *Desferal* dreams of an oral iron chelator," he says. Yet joining a trial wasn't an easy decision since most of Dr. Piga's patients were well-controlled on *Desfera*l. Mario, for example, pondered for three weeks before finally deciding to switch to ICL670.

Until recently, it looked like patients might never have a choice. *Desferal* was derived from a natural substance originally discovered in an iron-eating bacterium called Streptomyces pilosus. But the hunt for a replacement floundered as scientists repeatedly encountered obstacles in their attempts to develop a safe and effective oral iron chelator or even a more convenient version of *Desferal*.

Then, in the mid-1990s, as most major pharmaceutical companies continued to ignore the iron-chelation field, Novartis researchers made one final push. Applying cutting edge "molecular modeling" tools in the lab, researchers synthesized hundreds of molecules before finally choosing a single candidate compound, ICL670, to enter clinical testing. Dr. Rene Lattmann, a Basel-based chemist, was named a Novartis Leading Scientist last year in recognition of his role in the synthesis of ICL670.

The new medicine seemed full of promise. Two molecules of ICL670 folded snugly around each iron molecule in the body, dispatching it for excretion. Along with once-daily dosing, and high affinity and selectivity for iron, ICL670 was far more potent than *Desferal*, yet seemed free of the toxicity that had derailed so many predecessors.

Clinical testing had barely begun when the project hit an unexpected complication: the December 1996 merger of Ciba-Geigy AG and Sandoz AG that created Novartis in its current form.

The new company couldn't afford to develop all the drugs inherited from its predecessors so management weeded out the weakest prospects from the combined development pipeline. ICL670 faced tough scrutiny: previous failures had bred skepticism about oral iron chelators. With a potential market of roughly 85 000 patients worldwide, the drug had modest commercial potential; and that limited pool of patients also made recruitment for clinical trials unusually expensive and time-consuming.

ICL670 was briefly designated a candidate for out-licensing but Novartis management agreed to complete a clinical trial already underway before making a final decision. That study delivered a crucial proof-of-concept careful measurements showed that more iron came out of human patients treated with ICL670 than went in through diet. The net reduction of iron more than compensated for the effect of blood transfusions.

"All of a sudden we were back in business," recalls Hanspeter Nick, a chemist who had joined the iron chelator program in 1990.

Fast Track

By May 2002, ICL670 had become a "key project" the designation reserved for the most promising drugs in development at Novartis. That same year, ICL670 was granted orphan-drug status in both the US and Europe. (Orphan-drug legislation provides incentives to develop medicines for rare neglected diseases.) Last year, the US Food and Drug Administration (FDA) added "fast track" status confirming that ICL670 targeted a major unmet medical need and raising prospects of an expedited, six-month regulatory review.

The phase III trial now underway is the biggest study yet of an iron chelator. The study is designed to assess safety and efficacy of ICL670 compared with *Desferal* in a head-to-head comparsion involving roughly 500 beta-thalassemia patients from 12 countries.

A parallel trial is testing the efficacy of ICL670 in *Desferal*-intolerant patients who developed iron overload as a result of transfusions treating a variety of anemias, including myelodysplastic syndrome or MDS, a form of leukemia. While iron chelation has focused traditionally on the tight-knit thalassemia community in countries ringing the Mediterranean Sea and stretching eastward into India and China, transfusion-related iron overload is recognized as a truly global disorder.

At the 2003 biennial conference of the Thalassemia International Federation (TIF) in Palermo, Italy, Daniele Alberti, the Clinical Program Leader for ICL670, informed patients and physicians that results from initial clinical studies of ICL670 showed that the drug appeared to have a favorable safety profile and comparable efficacy to *Desferal* in reducing liver-iron concentrations over a one-year treatment period. "Many of the objectives of the development program already have been attained, others are near completion," Dr. Alberti said.

He cautioned, however, that it's still too early to assume the pivotal phase III trial will be successful. "It's a terrific opportunity but still a challenging one," Dr. Alberti said.

Research

Novartis Institutes for BioMedical Research

The Novartis Institutes for BioMedical Research (NIBR) encompass the global research activities of Novartis. Primary NIBR sites include Basel, Switzerland; Horsham, UK; Vienna, Austria; Tsukuba, Japan; and the new global headquarters in Cambridge, Massachusetts, US.

Under the leadership of Mark C. Fishman, President of the Institutes, the goal of NIBR is to discover new medicines reliably and predictably. To attain this goal, our work must be at the frontier of science and medicine, combining modern biology, chemistry, clinical pathophysiology and genomics. There is no simple method to harvest the estimated 30 000 different human genes in a way that leads directly to drug discovery. NIBR scientists, however, are dedicated to using the tools at our disposal today to discover medicines, while at the same time developing new approaches for future pharmaceutical discovery.

Within NIBR, some groups of scientists specialize in disease areas, while others focus on "Platforms" fundamental scientific disciplines that apply across a broad spectrum of diseases. Whether their research is dedicated to specific diseases or to fundamental scientific tools, NIBR scientists work closely with each other. They also work together with colleagues in Development to ensure that discoveries are translated effectively into safe medicines. This emphasis on cross-functionality means that NIBR scientists are involved from the identification of a potential drug target, through testing in the clinic, all the way to the market.

Our prime resource is talent. NIBR leaders have come from within Novartis, from other pharmaceutical companies, from biotech and from academia. The unique mixture of talents and experience is rejuvenating and synergistic, both at the bench and in the clinic.

The interface between NIBR and external academic colleagues is being expanded and is proving beneficial to both parties. Continued outreach to small biotech companies is opening new horizons and possibilities. The NIBR culture of creativity thrives on this sense of openness, entrepreneurial spirit, and scientific rigor.

In 2003, the new Cambridge headquarters was integrated into the global research effort. The first new laboratory building was completed and brought online and now it is the center of research activity in Oncology, Diabetes, Cardiovascular Diseases and Infectious Diseases. In addition, scientists dedicated to Platforms are in place working on genomic approaches, high-throughput technologies and novel chemistry tools.

In 2004 it is expected that our second research laboratory building will be completed and the number of research scientists in Cambridge will double. More importantly, as the number and quality of research scientists increase, and we continue to tap into scientific expertise worldwide, we believe it holds great promise for significant new discoveries that may potentially lead to the medicines of the future.

NIBR: A Global Organization

The new Institutes are designed to function globally, says John Hastewell, Head of NIBR's Program Office. "I believe that the advantages of global talent far outweigh the inconvenience of inter-site communication," he adds. Some groups are localized, such as the Respiratory Disease Area in Horsham. Many of their programs utilize the expertise of other NIBR groups elsewhere in the world, including Transplantation in Basel and Molecular Pathways in Cambridge. Some groups, such as Oncology, are split between two sites.

Science by its nature transcends traditional boundaries so that discoveries in one area often have an even more powerful impact on another. It is crucial to keep groups apprised of discoveries made by NIBR colleagues worldwide.

New technologies adopted by NIBR have led to advances in the invention and utilization of tools making it possible to visualize the structure of a drug target, according to Rene Amstutz, Head of Discovery Technologies. These tools, from nuclear magnetic resonance and x-rays, to a novel fluorescence-based technology to view individual molecules, allow us to "rationally" design a drug to fit the target, he adds.

Advanced computing, known as "grid" computing, permits the intensive mathematical calculations needed for this purpose. NIBR scientists have linked together hundreds of our computers to create a supercomputer capable of those calculations.

The Institutes also have an outstanding archive of natural products, traditionally a source of novel compounds that have been successfully developed into major medicines. The most rapid high-throughput technologies often redesigned by NIBR scientists have been brought to bear to examine "combinatorial" chemical libraries containing millions of compounds, in search of "hits" that start the process of drug design.

Major Unmet Medical Need

Novartis scientists have had great success in designing drug candidates for cancers where the cause of the disease is known. *Gleevec/Glivec* is targeted at the abnormal Abl protein in chronic myeloid leukemia, says Alexander Kamb, Head of the Oncology Disease Area. Many cancers, however, result from more complex mechanisms; for example, many solid tumors result from the activation or repression of several genes. Using the new genomic techniques, NIBR scientists probe for the weak points in such cancers and attempt to design the best drugs or

combinations of drugs to attack those weaknesses.

Several recent breakthrough discoveries have shown that the aggregation of abnormal proteins in neural tissue is an underlying cause of neurodegenerative diseases like Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, and Huntington's disease, among others. These findings open new opportunities to identify novel therapeutic approaches according to Graeme Bilbe, Head of Neuroscience Disease Area. Therapies could halt or delay disease progression based on a molecular understanding.

In addition, new imaging techniques allow NIBR researchers to examine the living brain. For example, scientists are developing a molecular probe, a so-called bio-marker, that may help to image Alzheimer's disease plaques in the brain earlier than is possible today.

Interesting New Leads

"Historically, most chemistry was 'hand-crafted' one compound at a time," says Scott Biller, Head of Global Discovery Chemistry. Today, using sophisticated techniques such as combinatorial chemistry together with cutting edge automation, chemists can synthesize hundreds or even thousands of biologically interesting molecules simultaneously.

"The libraries now being made are the best I've seen in my years in pharmaceutical chemistry," he adds. "We are doing an excellent job at true structure-based drug design."

NIBR chemists are exploiting the x-ray crystal structures of complexes of proprietary molecules with the target protein to design novel and superior drug candidates. "We have also implemented small fragment-based screening by nuclear resonance spectroscopy and x-ray crystallography, and have already found interesting new leads that we plan to optimize into drug molecules," Dr. Biller says.

"NIBR is a real chance to build a new vision on top of the successful and solid foundation that Novartis already has. Frankly, this is the most significant medicinal chemistry opportunity in the world."

Corporate Research

The mission of Corporate Research is to leverage the specific scientific expertise of its three member institutes to address unmet medical needs, with a particular focus on the developing world and neglected diseases.

Corporate Research at Novartis comprises three independent institutes with a total staff of more than 750 scientists. The institutes are: The Genomics Institute of the Novartis Research Foundation (GNF), based in La Jolla, California; The Novartis Institute for Tropical Diseases (NITD) in Singapore; and The Friedrich Miescher Institute (FMI), based in Basel, Switzerland.

GNF, formed in 1999, has a staff of 400 scientists who focus on development of advanced technologies in fields ranging from cellular genomics and proteomics, to combinatorial chemistry and structural biology. The Institute has also begun putting those new technologies to work in its own drug discovery programs where its scientists increasingly work in collaboration with counterparts at NIBR.

For example, GNF has developed cutting edge systems to screen proteases that complement the protease research platform established by NIBR at its main European research hub in Basel. Proteases are cellular enzymes that represent important targets for new drugs in diseases from HIV/AIDS and oncology to neurodegeneration and dengue fever. Research in dengue fever is conducted in collaboration with the NITD.

Growing Interaction

Underscoring growing interaction among Group research units, NIBR and GNF formed a joint research committee last year. GNF will host its first portfolio review this year, with external experts assessing the potential of candidate compounds identified by the Institute. Corporate Research will hold its first global science meeting in Cambridge, Massachusetts, US this year, which also will be attended by many NIBR scientists.

NITD is a joint development funded by Novartis and the Singapore Economic Development Board (EDB). The Institute and its 70 scientists will move to permanent labs in the Biopolis science park in Singapore, this year.

At least initially, NITD will focus on research in dengue fever and tuberculosis, two of the most threatening tropical diseases worldwide. Though the center only opened last year, two drug-discovery projects have already progressed to the stage of lead optimization, or chemical fine-tuning of potential candidate compounds. NITD will host its second scientific review this year conducted by the review board which includes Nobel laureates Rolf Zinkernagel, a member of the Novartis Board of Directors, and Sydney Brenner.

NITD's mission also includes graduate and post-graduate training programs open to scientists from developing countries. At full capacity, the training programs are expected to accommodate roughly 30 students. Parallel with its drug discovery programs, the Institute is tapping regional acumen about its two target diseases. In 2003, NITD formed a "Dengue Consortium" bringing together six partners, including the Genomics Institute of Singapore and other academic groups, that will cooperate on research in dengue fever. NITD also arranged a conference with clinicians and epidemiologists from Singapore to assess whether compounds and treatment models under consideration are appropriate for use under the conditions that prevail in healthcare systems of poor countries. A similar meeting will be held in Cambodia, in 2004.

At Basel-based FMI, the main areas of scientific focus range from epigenetics and growth control, to neurobiology. Fundamental biomedical research conducted at FMI has generated a number of potentially interesting drug targets. One particular strength is the area of kinases where work by FMI scientists has led to candidate compounds in both cancer and infectious diseases. FMI also trains young scientists and has been a prime recruiting ground for Novartis more than 50 scientists have moved from the Institute to the company's labs.

Cardiovascular

The Long Road to Blood-Pressure Control

The perils of high blood pressure have been known for decades but awareness still hasn't translated into effective control for the majority of the 58 million Americans and 1 billion people worldwide who suffer from hypertension.

Last year, in the Seventh Report of its Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC7), the US National Institutes of Health (NIH) reiterated the risks: "The higher the blood pressure, the greater the chance of heart attack, heart failure, stroke and kidney disease." Yet only 54% of US patients with hypertension receive treatment and only 28% have adequately controlled blood pressure, according to a review of clinical practice published in the New England Journal of Medicine.

Some groups such as African Americans and older women are particularly vulnerable. According to the American Heart Association, the rate of heart disease is 1.5 times higher among black Americans than among whites. The corresponding rates of fatal stroke and end-stage kidney disease are 1.8 and 4.2 times higher respectively.

Novartis is committed to protecting and improving the lives of all people with cardiovascular disease. That commitment is underscored by one of the pharmaceutical industry's biggest clinical-trial programs where *Diovan* and *Lotre*l, two of the fastest growing antihypertensives in the US, are being tested in potential new applications in tens of thousands of patients.

The rise of *Diovan* to its current position as the number one angiotensin-II receptor blocker (ARB) globally has been buoyed by a bold clinical program designed to involve 50 000 patients.

The "megatrial" program has delivered positive outcomes in the first two trials and continues to investigate further potential new applications across the cardiovascular continuum, from pre-diabetes to heart failure.

Meanwhile, the *Lotrel* clinical-trial program includes more than 25 000 patients. *Lotrel* a fixed-dose combination of amlodipine besylate and the angiotensin-converting enzyme (ACE) inhibitor benazepril has been on the US market since 1995. Clinical trials have demonstrated that the dual mechanism provides synergistic effects on blood-pressure lowering and reduction of hemodynamic side effects, such as edema.

Combination treatments like *Lotrel* are becoming increasingly common and the JNC7 guidelines issued last year emphasize that "most patients with hypertension will require two or more antihypertensive medications to achieve goal blood pressure."

Such guidelines are important for physicians. But large clinical trials still provide the crucial data on which physicians rely to make patient decisions, says Dr. Kenneth Jamerson, Professor of Medicine at the University of Michigan Medical Center and a key figure in both the *Diovan* and *Lotrel* megatrial programs.

"What clinicians and academics really respect is a study that asks a question we don't know the answer to right off the bat," Dr. Jamerson adds. "If a company really wants to know the maximum potential of a medicine, it has to be tested to the limits, even though pushing to the limits doesn't always guarantee dramatic successes."

"Gradations of Good"

The initial *Diovan* megatrial was the groundbreaking Val-HeFT study of more than 5 000 heart failure patients from 16 countries. Val-HeFT has led to approval of *Diovan* for treatment of heart failure in patients intolerant of ACE inhibitors in the US and more than 40 other countries.

Late in 2003, researchers reported the results of VALIANT, the biggest long-term study to date in people who have survived a heart attack. VALIANT demonstrated that *Diovan* has all the established, lifesaving benefits of captopril, the ACE inhibitor also known by its brand name Capoten®. In a head-to-head comparison in nearly 15 000 patients at the highest risk of death following a heart attack, *Diovan* was at least as effective as captopril in reducing cardiac events following a heart attack, including repeat heart attacks, and hospitalizations for heart failure.

Heart attack remains one of the world's deadliest conditions. Every year 600 000 people from EU countries, and 1.1 million Americans, suffer a heart attack.

About half of these victims die. In addition, all the survivors have permanently damaged hearts and a greatly increased risk of repeat attacks, heart failure or other deadly complications. As a result of the VALIANT data, Novartis has filed a supplementary application seeking regulatory approval of *Diovan* to treat patients following a heart attack.

Results from the next major *Diovan* study, VALUE, are expected this year. VALUE is a head-to-head comparison of *Diovan* and amlodipine, a calcium channel blocker marketed under the brand name Norvasc®, in more than 15 000 hypertensive patients with at least one additional risk factor for cardiovascular events.

Capoten® and Norvasc® are registered tradenames of Bristol-Myers Squibb and Pfizer respectively.

Head-to-head comparisons with established drugs are particularly challenging because of what Dr. Jamerson calls "gradations of good." Success requires increased efficacy, or a relative risk reduction, of at least 15% above what a successful drug like captopril already offers patients.

Still, in a crowded market like hypertension, the cumulative effect of megatrials is essential to distinguish *Diovan* from rivals. "There are only a few ARBs that have end-point data and they get the lion's share of the market," Dr. Jamerson says.

When VALUE began in 1997, researchers set their sights on solving a vexing medical mystery. Epidemiological studies of cardiovascular disease clearly show that as blood pressure increases, there is a corresponding rise in the risk of both stroke and heart attack. Yet while antihypertensive treatment led to a reduced risk of stroke, trials weren't able to prove a similar benefit against heart attacks. "There was always this gap and the real unmet need in the cardiovascular arena at that time was the lack of benefit from antihypertensive drugs on heart-related outcomes," Dr. Jamerson recalls.

There were tantalizing hints that ARBs and potentially *Diovan* might reduce blood pressure in a way that provided that elusive, beneficial effect against heart attacks. "Seeing if *Diovan* could outperform amlodipine, which was perceived to be the best treatment option, was definitely on the edge for the time," says Dr. Jamerson, who has acted as national coordinator for more than 200 US medical centers participating in VALUE.

The same scientific riddle caught the attention of major research organizations such as the NIH, and a succession of studies during the past seven years has compared effects of various antihypertensive drugs. So far no antihypertensive class has significantly outperformed the others in terms of a benefit on heart-related outcomes but until VALUE, ARBs had not been given a definitive trial.

"VALUE is positioned to be the pivotal study that could settle the debate about drug-specific mechanisms," Dr. Jamerson predicts.

A Higher Road

With the *Lotrel* clinical program, Novartis is pushing the limits of combination therapy. ACCOMPLISH a five-year study that began during 2003 and will involve more than 12 000 patients is the first head-to-head comparison of fixed-dose combination antihypertensives. It pits *Lotrel* against the combination of a diuretic plus ACE inhibitor, generally regarded as the current gold standard of therapy and recommended in the JNC7 guidelines.

Dr. Jamerson, who is also the lead investigator of ACCOMPLISH, insists there's scant clinical data to demonstrate superiority of the diuretic/ACE inhibitor combination. "ACCOMPLISH is the next generation in trials the right study that asks the right question at the right time," he says. "If there is no one magic bullet and you end up needing a combination to achieve blood-pressure control, physicians want to know what that combination should be."

ACCOMPLISH is also breaking new ground by including an usually high (40%) proportion of African American patients among participants. This trial design ensures sufficient statistical power to determine if either combination shows a particular benefit among the black population a key clinical question considering the elevated rates of hypertension and cardiovascular mortality among blacks. Last year the International Society on Hypertension in Blacks urged more aggressive treatment of high blood pressure among African-Americans and predicted that most "would likely require combination antihypertensive therapy to reach appropriate blood pressure goals."

Ironically, there isn't much data to support that recommendation because few compounds are tested specifically among minorities. According to the Association of Black Cardiologists, "the need for increased enrollment of minorities in clinical trials is particularly acute in development of new treatments for cardiovascular disease."

Dr. Jamerson himself an African American says that with ACCOMPLISH Novartis "is really extending the limits in industry-sponsored trials." Government-sponsored studies in the US require broad participation from ethnic or gender groups that have a disproportionate burden of the disease of interest, he says, but company-sponsored trials are exempt from that rule.

"Novartis has adopted a higher road by looking at the ethnic diversity of the country in which it markets the product," Dr. Jamerson adds.

Oncology

Treating Breast Cancer Will Never Be the Same

Labor Day is the last big summer holiday in the United States and Greg Burke, Global Head of Oncology Development at Novartis, was relaxing at his home in New Jersey when his cell phone rang.

The caller was Dr. Paul Goss, Director of Breast Cancer Research at Princess Margaret Hospital in Toronto, Canada and international chair of a major study involving *Femara*, a treatment for breast cancer developed by Novartis.

Dr. Goss had spectacular news. His *Femara* study, known as MA-17, had reached its objectives more than two years ahead of schedule. The trial's Data Safety and Monitoring Committee had recommended that the trial be modified immediately so that nearly 2 600 trial participants who were receiving a placebo, or sugar pill, could be given a chance to "cross over" to treatment with *Femar*a.

That phone conversation set off an intense chain of events that culminated a month later with publication of the MA-17 results in the prestigious New England Journal of Medicine (NEJM). A simultaneous press briefing in Toronto, headed by Dr. Goss and fellow investigators, ensured that the study made headlines around the world. Treatment of breast cancer will never be the same.

MA-17 focused on treatment of postmenopausal survivors of hormone-receptor-positive breast cancer, an estimated 250 000 women in North America alone. These women normally undergo surgery, followed by chemotherapy, which attacks tumor cells the surgeon may have missed or ones which have spread to distant parts of the body. Then comes "adjuvant" treatment with tamoxifen, a drug which dramatically improves a woman's odds of remaining cancer-free.

Tamoxifen treatment is only considered beneficial for five years, however, leaving women who complete those five years uncertain about what to do next.

"When you get the initial diagnosis, it's scary facing your mortality. Then, coming to the end of tamoxifen, it's frightening again," says Kathy Anderson, a Canadian elementary-school principal who took part in MA-17. "These results send a message of hope I'd hope that all women would have a chance at this standard of care."

Model for Megatrials

In MA-17, treatment with *Femara* after completion of the standard tamoxifen regimen reduced the risk of recurrence by 43%, compared to women who received no further treatment. Along with a reduction in recurrence of breast cancer in the previously affected breast, women taking *Femara* also had reductions in the number of new cancers in their opposite breast and the spread of cancer outside the breast. And *Femara* was generally well-tolerated, with side effects similar to those experienced by women undergoing menopause.

Dr. Goss calls MA-17 one of the most important breast-cancer studies of the past 20 years. "The reason it's so important is that it was a comparison against nothing," he adds. "It was like adding something that never had been tried before but turned out to have a massive effect. So that on top of chemotherapy and tamoxifen, women could add *Femara* and get another whole chunk of insurance against recurrence of breast cancer."

Novartis scientists were equally jubilant. "We always thought that *Femara* was going to work in the extended-adjuvant setting but these trials usually take a long time to get results. To see such a positive outcome all of a sudden was incredibly exciting," says Dr. Diane Young, Head of Global Clinical Development at Novartis Oncology. "It's extremely rare in an industry research career to be involved in something that's hailed as a change in medical practice," Dr. Young adds. "What's really amazing is that this comes so soon after another totally novel breakthrough from Novartis Oncology the development of *Gleevec/Glivec* that revolutionized treatment of chronic myeloid leukemia."

While breast-cancer patients and their physicians are the big winners from MA-17, the study also offers a model for conducting cancer megatrials where close cooperation between a pharmaceutical company and independent research groups can lend further weight to trial results and their rapid adoption in clinical practice.

MA-17 was designed mainly by Dr. Goss, but treatment of the study's 5 187 participants was conducted at dozens of centers linked in an unprecedented, trans-Atlantic network of cooperative clinicaltrial groups from Canada, the US, and Europe.

"Cooperation is essential to get these very large trials done," Dr. Young says. "The cooperative groups are used to working together, and they have established, standard procedures in place that make it possible to accomplish great things quickly."

Involving physicians at the community level boosts patient recruitment and also spreads first-hand knowledge about cutting edge medicines and novel clinical approaches beyond the rarified circles of key opinion leaders at renowned teaching hospitals. "The structure of these groups couldn't be better for penetration of a new therapy. Along with key opinion leaders from all over the world, you've got hundreds of community physicians who are local experts on MA-17, feeling part of it and wanting to share the results with colleagues," Dr. Goss muses.

Estrogen Deprivation

Femara belongs to a class of drugs known as aromatase inhibitors, which work by blocking aromatase, the enzyme primarily responsible for synthesis of estrogen in the body. Estrogen is the major growth factor in hormone-receptor-positive tumors, which account for about two-thirds

of all breast cancer cases. Estrogen deprivation is the main therapeutic approach.

Tamoxifen, by contrast, inhibits stimulation of tumor growth by preventing the binding of estrogens to estrogen receptors in cancer cells. Studies show that tamoxifen treatment reduces the risk of breast-cancer recurrence by nearly 50% and the risk of death by 26%. But after five years of treatment, tumors tend to become resistant to tamoxifen and the drug's therapeutic benefits are gradually outweighed by side effects.

The ability of aromatase inhibitors to reduce estrogen levels by up to 95% and starve hormone-receptor-positive tumors marked them as competitors to tamoxifen as the gold standard of care. But proving that potential has required a marathon of giant clinical trials.

In the time-honored calendar of drug development, an anticancer agent must first prove its mettle against the most advanced tumors. *Femara* won approval for treatment of advanced breast cancer in the UK in 1996, in the US a year later, and today it is available in more than 75 countries. Three years ago, *Femara* proved to be more effective than tamoxifen in a head-to-head trial involving more than 900 postmenopausal women with advanced breast cancer. Patients taking *Femara* had a significantly longer time to disease-progression, and higher response rates, than women receiving tamoxifen.

Adjuvant therapy loomed as an even bigger prize and in 1998, Novartis opened a head-to-head comparison of *Femara* against tamoxifen in the early adjuvant treatment of postmenopausal, breast-cancer survivors. Known as BIG 1-98, the trial involves more than 8 000 patients and is being conducted by the Breast International Group, a network of cooperative clinical groups from Europe, Canada and Australasia. The study compares the efficacy of *Femara* and tamoxifen in adjuvant therapy for five years after primary treatment as well as sequential variations of *Femara* and tamoxifen during the treatment period.

Traveling the World

MA-17 also started in 1998. Dr. Goss was convinced that the uncertainty facing breast-cancer survivors after five years of tamoxifen treatment so-called extended adjuvant treatment represented an urgent medical question. However, the study was originally designed to test vorazole, an aromatase inhibitor being developed by Johnson & Johnson.

"I spent a year traveling around the world, presenting the idea to cooperative groups in Europe and North America and getting buy-in for the trial," Dr. Goss recalls with a sigh. But two weeks before the first patient was due to be enrolled, Johnson & Johnson abruptly halted development of vorazole and bailed out of MA-17.

Scrambling to find a new industry sponsor and salvage the study, Dr. Goss called Novartis. Despite the short notice, ongoing summer vacations in Europe and skepticism from some scientists that *Femara* could achieve the ambitious goals set for MA-17, Novartis agreed to join the study.

It was a bold step. After all, tamoxifen generally is credited with saving more lives than any other anticancer medicine and had also demonstrated a sustained, carryover effect for several years following cessation of the initial five years of adjuvant therapy. Underscoring that point in an editorial accompanying the NEJM's publication of MA-17 results, Dr. John Bryant and Dr. Norman Wolmark recall: "It was anticipated that the initial effect of *(Femara)* therapy would be moderate, with increased benefits becoming evident only with longer follow-up."

So when MA-17's Data Safety and Monitoring Committee began a scheduled interim analysis in late August, nobody was prepared for the bombshell the Committee delivered.

"We simply found what we were looking for sooner than expected," Dr. Goss says. "The study had set out to discover if *[Femara]* could reduce disease occurrence by 22%. When we knew it could, by 43%, we said "Good enough, that's it. The study is over. *Femara* works fabulously well."

The next step was to comply with the committee's order to unblind the study as promptly as possible. The trial's executive committee, representing the cooperative groups, agreed unanimously that the trial should end ahead of schedule.

Dr. Goss then contacted the NEJM to see if the study was considered to be important enough to receive an expedited review. When the journal agreed, the Data Safety and Monitoring Committee consented to a delay of roughly three weeks, during which the paper was written and peer reviewed. At the same time, press releases were prepared and coordinated among study co-sponsors: Cancer Institute of Canada, the US National Cancer Institute and the European Organization for Research and Treatment of Cancer (EORTC).

Making a Difference for Patients

Though no one seriously questioned the ethical obligation to give MA-17 placebo participants the right to "cross over" as soon as the superior efficacy of *Femara* was clear, the premature modification left some key questions unanswered. Novartis and the cooperative groups are moving to address many of those loose ends.

Perhaps most importantly, Novartis plans to submit applications to regulatory agencies during the first half of 2004 seeking the additional indication of "extended adjuvant" therapy for *Femara*. Since *Femara* is already on the market, physicians can prescribe the drug for medically appropriate uses but without formal regulatory approval, insurers and governments might balk at reimbursing the cost of the treatment.

While MA-17 ended early, patients will continue to receive treatment for the full five years promised when they joined the study. Long-term safety of extended adjuvant treatment with *Femara* will be followed closely. Meanwhile, Novartis and the cooperative groups are discussing a possible extension of MA-17 to evaluate *Femara* treatment for a further five years, and to attempt to establish the optimal duration of treatment and assess long-term side effects.

"There's no doubt that it's an important question," Dr. Goss says. "There's nothing from the MA-17 result to suggest that *Femara* therapy shouldn't be chronic."

Separately, Novartis is exploring use of *Femara* in combination treatments. One important side effect of *Femara* treatment observed during MA-17 was a potentially increased risk of osteoporosis and resulting fractures. Studies in Europe and the US are testing whether a combination of *Femara* and *Zometa* can mitigate the potential risk to bone safety in adjuvant treatment. *Zometa* is a bisphosphonate, used to treat bone-related cancer complications and it is also under development as a treatment for osteoporosis.

In yet another study, *Femara* is being combined with *Certica*n, an immunosuppressant drug already approved in transplantation. There is preliminary evidence that *Certican* could block a signaling pathway that plays an important part in stimulating breast cancer, in a manner similar to the role of estrogen in hormone-receptor-positive tumors.

"These combinations of *Femara* with other agents reflect the breadth of our oncology portfolio and how it fits together to create unique opportunities to make a difference for cancer patients," Dr. Young says. "There's a lot of thinking and talking today about how to answer remaining questions that need to be answered, and the studies that need to be done. I expect Novartis to remain fully involved in these conversations."

Neuroscience

Trileptal: Putting Children First

Last year *Trileptal* became the first anti-epileptic medicine in 25 years to win approval from the US Food and Drug Administration for use as monotherapy in children as young as four years of age.

The approval reflected an ambitious global clinical program that aims to extend the benefits of *Trileptal* therapy to very young children, a group with a major unmet medical need. The drug is already available in more than 70 countries but pediatric age limits approved by regulators vary widely.

Prior to the FDA's new age limit, *Trileptal* monotherapy in the US was limited to adults. In the EU, however, *Trileptal* was approved five years ago as the first approved monotherapy for epileptic children from age six. In Australia and countries of Latin America, *Trileptal* is either approved for all patients without an age limit, or to treat children as young as two.

An estimated 50 million people worldwide suffer from epilepsy. Up to 5% of the world's population may report a seizure at some point in their lives but the very young are particularly vulnerable. Incidence is high in children up to the age of 10 but also common in infants below one year of age. In these youngest patients, seizures often signal serious disease which, without effective treatment, can lead to permanent disability.

The pediatric clinical program now underway with *Trileptal* involves roughly 300 patients. More than 50 of these patients are infants less than one year of age, the youngest only one month. While eight new anti-epileptic drugs have been launched during the past decade, only a handful have been tested in children, mainly as adjunctive therapy. Physicians welcome more studies in children even expert epileptologists readily acknowledge they need all the help they can get.

Professor Christian Elger, Head of the Department of Epileptology at the University of Bonn, personally sees more than 1 000 patients annually, and supervises cases of thousands more treated each year in his hospital. "Even with all that experience, you simply can't foresee how a drug will work in epilepsy patients especially young children," Dr. Elger says. "If a new drug comes on the market, it can work perfectly for the first 10 patients but then be ineffective for the next patient who has exactly the same symptoms as the others. Everything exactly the same but the drug doesn't work. You can't understand it."

Trileptal is widely used in pediatric cases, partly as a result of demonstrated efficacy and safety but also the availability of a pediatric oral-suspension formulation. "When we look at how to take care of these kids, especially the youngest less than a year old, not only do you need to pick the right drug but it needs to have a formulation which can be used. A suspension formulation is very important," says Dr. Tracy Glauser, a specialist in pediatric epilepsy at the Children's Hospital Medical Center, Cincinnati, Ohio, US.

One of the trials now in progress explores the effect of *Trileptal* on cognition, a key question since children with epilepsy also have a high incidence of other neurological problems and learning disorders. The European Agency for the Evaluation of Medicinal Products, or EMEA, Europe's main regulatory agency, asked Novartis to conduct the cognition study when it approved *Trileptal* in 1999.

More than 110 patients, with a minimum age of six years, are being treated for six months with either *Trileptal*, or two older-generation, standard anti-epileptic drugs. After six months' treatment patients will be evaluated with a neuropsychological test battery on criteria ranging from attention and reaction-time, to decision-making and memory. "This will give us important information about the effect of *Trileptal* on cognitive function which may have an impact on behavior and any psychiatric problems these kids may have," Dr. Glauser says.

Novartis is also conducting two trials requested by the FDA to document the safety, efficacy and pharmacokinetic characteristics of *Trileptal* in children and infants as young as one month in both the drug's approved indications, monotherapy and adjunctive treatment. The trials are complex and challenging, requiring hospitalization of a child for extended video-electroencephalographic (EEG) monitoring.

The monotherapy trial involves 80 patients ranging in age from one month to sixteen years who will receive different doses of *Trileptal*. After treatment for five days, each patient will undergo video-EEG monitoring for up to 72-hours, to assess effects of the different doses on seizure frequency.

The adjunctive-therapy study investigates the effect of adding different doses of *Trileptal* to combinations of up to two other anti-epileptic drugs during 30 days of treatment. Patients will undergo continuous video-EEG monitoring both before and at the end of the trial treatment period to assess the reduction in seizure frequency from baseline.

Successful completion of these trials would lead to a six-month extension of market exclusivity for *Trileptal* in the US. Data from these three studies will be submitted to regulatory agencies worldwide in an attempt to further reduce current age limits or revise prescribing guidance to include safety and dosing information for very young children.

"There haven't been many studies done in very young kids because they're so hard to do," Dr. Glauser says. "If these trials succeed, it would set a standard which other companies will be expected to match."

Respiratory and Dermatology

A New Frontier for Fighting Severe Allergic Asthma

The approval of *Xolair* in the US in June 2003 brought a breath of hope to many patients like 15-year old Jeremy Holliman. He has lived under constant threat from allergic asthma since suffering his first attack at the age of six months. Medical science seemed powerless to relieve the condition that disrupted his schooling, sports and social activities, and periodically led to severe exacerbations that left him fighting for life in a hospital emergency room.

For Jeremy and his family, the breakthrough came with his enrollment in a clinical trial for *Xolair*, a biological therapy unique in targeting a root cause of allergic asthma and other allergic diseases. It took more than 15 years for scientists at Novartis, and our collaborators Genentech and Tanox, to develop a molecule that is effective against an antibody called IgE. This produces the inflammatory symptoms of allergic asthma in individuals such as Jeremy, who are "atopic" or sensitive to a range of normally harmless substances.

The result was *Xolair*, now approved in the US for treating moderate-to-severe allergic asthma in adolescents and adults whose condition is inadequately controlled by inhaled corticosteroids.

For Jeremy, life was transformed: "It was great...I could play with my friends; I could go swimming for extended periods of time, even run around at school during Physical Education. I just want to thank the doctors so much, because without them I would never have found *Xolair*."

In time, the benefits could be even more widely felt because *Xolair* offers the potential to address a number of other allergic conditions. For example, a clinical trial is planned to evaluate the effectiveness of *Xolair* in treating severe and potentially fatal reactions in people who are allergic to peanuts.

Growing Relief

Another Novartis therapy, *Elidel*, has brought relief to a growing number of patients who suffer from a different, but still highly distressing, form of allergic disorder the inflammatory skin disease known as atopic eczema. During 2003 Novartis stepped up its program to make *Elidel* cream as widely available as possible. The therapy has now been approved in 69 countries and introduced in almost 40 countries.

There was a special significance to the launch in Austria in March 2003, since *Elidel* was in a sense coming home. The product was developed by Professor Dr. Anton Stütz and his team at the Novartis Research Institute in Vienna, the company's centre of excellence for discovering treatments and cures for skin diseases and allergic disorders.

Their mission was to tackle the misery of atopic eczema, vividly described by one Austrian mother on a Novartis-sponsored patient website: "From the age of two months, my son Stefan suffered quite severely from eczema. There wasn't a single clear spot on his whole body," she says. "We tried pretty well everything: diets, ointments, and so on, and I became desperate because the sleepless nights took their toll on the whole family. But Stefan is the sunshine of my life, although he suffered so much."

The mainstay of therapy since the 1950s had been corticosteroids, whose use was limited by side-effect concerns. The pioneering research in Vienna produced a cream that was steroid-free, but also highly effective in relieving the itching and redness of atopic eczema, and in preventing the severe outbreaks known as flares. *Elidel* is generally licensed for use in adults and children from the age of two with mild-to-moderate atopic eczema. In some countries outside the US, *Elidel* has received approval for treatment of infants as young as three months.

According to Professor Klaus Wolff, MD, Head of the University Dermatology Department at the General Hospital of Vienna, *Elidel* enabled a new strategy to be adopted for treating the disease. "Until now, effective therapy could be initiated only when the disease was at an advanced stage because the risk of side effects was too high," Dr. Wolff says. "Now, at the first sign of itch and reddened skin, an effective medication can be used that prevents flare progression and can help avoid the need for corticosteroid creams."

Transplantation

Neoral and Beyond

In 2004, Novartis is celebrating two decades of leadership in transplantation.

Since the 1984 launch of cyclosporine, a pioneering medicine which revolutionized transplantation, the company has continued to discover and develop new treatments and to improve administration of lifesaving therapies to patients. Today Novartis has one of the pharmaceutical industry's largest portfolios of transplant treatments, and one of the biggest research budgets in the field. About 120 scientists work on solutions to unmet medical needs in transplantation, such as chronic rejection and vasculopathies.

"We believe that long-term demand for transplant drugs will remain attractive," says Tony Rosenberg, Head of the Novartis Transplantation and Immunology Business Unit. "Broadening our portfolio to rejuvenate our franchise will enable Novartis to maintain a solid leadership position in this area."

Neoral, a micro emulsion formulation of cyclosporine remains a cornerstone of immunosuppression therapy. Physicians today usually blend drug "cocktails" with cyclosporine or another primary immunosuppressant as the base ingredient, combined with other medicines like *Simulect*, *Certican* and *Myfortic* to meet the needs of individual patients.

Certican and *Myfortic*, two new medicines from Novartis in early stages of their global roll out, are extending physicians' options for individualized therapy with the goal of improving quality of life for patients. The development pipeline includes other promising Novartis compounds with potential applications in kidney, heart, liver and lung transplants.

Immunosuppressants prevent rejection by blunting the immune system's response to the presence of a transplanted organ. Therapy must continue for the duration of a transplant recipient's life and with organ survival now measured in decades, there is increasing emphasis by physicians on side effects that influence a patient's quality of life.

For example, a study presented last year at the International Liver Transplant Society showed that *Neoral* was associated with significantly fewer cases of new-onset diabetes than the rival immunosuppressant Prograf® in a randomized, multi-center study involving nearly 500 patients. New-onset diabetes after transplantation increases the risk of organ failure. Last year, a group of leading transplantation experts from Europe and North America published the first consensus guidelines on management of new-onset diabetes after transplantation recommending careful monitoring of the choice of immunosuppressant.

A Relentlessly Progressive Complication

Myfortic belongs to the mycophenolic-acid (MPA) class of immunosuppressants which is widely used in combination with *Neoral*. The advanced enteric-coated formulation of *Myfortic* has the potential to reduce gastrointestinal side effects seen with other MPA formulations, which can lead to dose reduction or discontinuation of therapy.

Certican is a novel, proliferation-signal inhibitor which was extensively tested in a clinical trial program involving more than 3 000 renal and heart transplant patients. In those studies, *Certican* demonstrated an ability to target primary causes of "chronic rejection," one of the most pressing, unmet medical needs in transplantation.

Chronic rejection occurs gradually in the years following a transplant appearing eventually in the form of occlusion and narrowing of the arteries in a transplanted heart, and fibrosis, or scarring, in microscopic blood vessels in the kidney. This thickening of arteries or vasculopathy is a relentlessly progressive complication which occurs in about half of heart-transplant patients in the first several years after surgery.

A study involving more than 630 patients at 52 medical centers in the Americas and Europe which was published in the New England Journal of Medicine last year, showed that *Certican* was more effective than current treatment with azathiaprine in reducing indicators of the development of cardiac vasculopathy 12 months after transplantation. An accompanying NEJM editorial by Dr. Robin Avery, MD, called the study "unique among large randomized studies in showing the effect of a particular immunosuppressive regimen on the development of allograft

vasculopathy." If these differences persist in subsequent years, Dr. Avery added, "this effect of *Certican* could translate into a substantial long-term benefit for patients who received the drug."

Certican has completed the EU's mutual recognition procedure in 15 countries which are expected to issue marketing authorization in 2004. *Myfortic* is currently undergoing the EU's mutual recognition procedure. Regulatory applications for both *Myfortic* and *Certican* are pending with the US Food and Drug Administration.

Although *Myfortic* and *Certican* represent significant treatment advances, a new Novartis drug still known only by its research number FTY720 could be an even bigger breakthrough. FTY720, currently in phase III clinical development, is a new and unique immunomodulator that may significantly improve transplant therapy. The drug is the first sphingosine-1-phosphate receptor (SIPR) agonist and protects transplanted organs from immune-system attack by reducing the re-circulation of white blood cells which remain sequestered in lymph nodes.

By contrast to classical immunosuppressive agents that, in effect, shut down a patient's immune system, studies have shown that immunity to some infections remains intact during treatment with FTY720, without jeopardizing the transplanted organ. Moreover, pre-clinical results indicate that FTY720 works synergistically with both *Neoral* and *Certican* and that the addition of FTY720 at clinically relevant doses doesn't result in increased side effects. Combination therapy may allow dose reductions of *Neoral* and *Certican*, and thus improve tolerability of the immunosuppressive regimen.

Transplantation remains an attractive long-term growth segment where Novartis is strategically placed to provide a product portfolio covering all therapeutic classes and addressing unmet medical needs while also allowing physicians to tailor therapy to individual patient needs*Simulect*, *Neoral*, *Certican*, *Myfortic* and FTY720 all have therapeutic advantages that will ensure that Novartis remains a key player in transplantation.

Gastrointestinal

Hearing the Patient, Healing the Patient

Novartis is always mindful of the burden diseases place on families because it allows us to speak the patient's language. By properly addressing patients' concerns and priorities regarding treatments, Novartis was able to educate a patient population of millions about a disease category no one was talking about irritable bowel syndrome (IBS).

The challenges in developing and marketing *Zelmac/Zelnorm,* our treatment for IBS have been considerable. Market research conducted in 2002 and 2003 showed consumer awareness of IBS was surprisingly low especially when one considers that IBS affects up to one in five Americans, costs the US healthcare system billions annually and is second only to the common cold as a cause of workplace absenteeism. This research also unearthed a deeper problem: due to extreme embarrassment about their symptoms, or a genuine lack of awareness, IBS sufferers were shying away from visiting their doctors or talking about their symptoms.

Difficulties marketing to the IBS population were apparent as early as March 1999, when initial patient insight studies revealed that doctors and patients weren't speaking the same language. While physicians tended to focus on the bowel symptoms of IBS with constipation (IBS-C), patients were troubled by abdominal pain and bloating as well.

"These insights helped Novartis reshape the IBS market place, expand patient diagnosis potential, and fundamentally position the brand on a broader platform as the leading agent for the multiple symptoms of IBS-C," says Kurt Graves, Chief Marketing Officer at the Novartis Pharmaceuticals Division. "We realized that we could not just rely on good scientific data, thinking that is enough. The most important part of consumer marketing is understanding the customer's mindset. You've got to invest to get that."

The investment paid off. The marketing platform ("ABCs of IBS") emphasized a key learning from the insight studies almost all patients have three major symptoms, not just IBS with constipation.

The challenge was to establish the patient/physician dialogue. These efforts commenced with the launch of Talk IBS, a national public awareness campaign designed in the US to teach consumers about the symptoms and management of IBS. Novartis enlisted the help of actress Lynda Carter and the Society for Women's Health Research to help bring the story of IBS into the hearts and minds of Americans. Ms. Carter was able to bring her own personal experience with IBS to the table. Her mother suffered with the multiple symptoms of IBS for more than

30 years.

Lynda Carter and the Talk IBS campaign spread unbranded IBS awareness to audiences across the US, reaching 99 of the top 100 markets and a potential audience of 158 million people. Further IBS awareness tracking research found that over the course of the campaign, US awareness of IBS had increased from 14% to 32%. The Talk IBS campaign messages were clear: "You are not alone. Help for IBS is available. Visit your doctor."

Consider the case of Gloria Swanson, who suffered for 15 years before getting a correct diagnosis of IBS-C. On several occasions the physical pain, gas and bloating landed her in emergency rooms where she was either given a nurse-administered enema or told to go home and drink half a bottle of laxative. Any relief was always shortlived with symptoms returning in a few days.

Gloria frequently missed work when her pain and bloating was so bad she was unable to sit on a bus, or at her desk, for extended periods of time. The harsh laxatives she took to try to alleviate the pain often forced her to take an additional day off to manage the resulting diarrhea. Even her honeymoon in Paris was affected by IBS as Gloria chose to take shortcuts back to the hotel instead of going sightseeing with her husband.

Gloria is now taking *Zelnorm* and is happy that understanding of her IBSC has come a long way from the days when doctors were telling patients to take a cigarette and magazine to the bathroom and just sit. Gloria also says that her doctor has a lot of confidence in *Zelnorm* based on the information that he received from the Novartis sales force, and the successful experiences that she shared with him.

The close of 2003 also saw exciting results for the brand. With the launch of the US Direct-to-Consumer (DTC) advertising campaign in July, *Zelnorm* sales have exceeded USD 100 million for the year and will soon reach one million prescriptions.

Novartis also filed for a Supplemental New Drug Application (sNDA) for *Zelmac/Zelnorm* for the treatment of chronic constipation in the US, Mexico and other countries, with global approvals expected during 2004.

Ophthalmics

The Right Note: How *Visudyne* Saved a Singer's Sight

When near-vision in Jacques Spoerry's left eye began to deteriorate in 1996, alarm bells sounded for the retired pediatrician. As a student during the 1950s he had lost much of the sight in his right eye to choroiditis. If his left eye went bad as well, he would descend into near blindness.

Failing vision also threatened one of Mr. Spoerry's favorite hobbies singing with a local choir in Neuchâtel, the city in western Switzerland where he has lived for nearly 40 years. "Along with my medical practice and gardening, music has been one of my greatest interests," he says.

For help in reading music, Mr. Spoerry began using a large magnifying glass but it proved so cumbersome that he turned to local ophthalmologists for help. Eventually, he was referred to a hospital in Lausanne where physicians confirmed diagnosis of neovascular, or "wet", age-related macular-degeneration, (AMD).

A degenerative condition characterized by growth of new blood vessels into the retina, wet AMD leads to rapid and severe vision loss in roughly 500 000 new patients each year. It is the most common cause of blindness for people over 50 in western nations.

Things began looking up for Mr. Spoerry when the physicians in Lausanne suggested that he join a clinical study of *Visudyne*, a therapy from Novartis. *Visudyne* is a photodynamic therapy, which combines an intravenous injection and laser therapy to destroy the abnormal blood vessels that cause AMD, without harming surrounding healthy tissue. During the first half of 1997, Mr. Spoerry received three sessions of *Visudyne* treatment with exceptional results his vision actually improved and he happily discarded the magnifying glass.

His vision has remained stable, according to semi-annual checkups during the five years since his last *Visudyne* treatment. "More people need to know about this therapy," Mr. Spoerry says. Like many physicians, he urges patients who notice signs of failing vision to seek help quickly. In severe cases AMD can cause major vision loss within a few months. There's no time to lose, he adds, "and no reason to miss out on the benefits of *Visudyne* therapy."

Demographic trends suggest that the prevalence of AMD and other "back of the eye" disorders will increase as the "Baby Boom" generation ages and approaches retirement.

Eyeing future expansion, the Ophthalmics Business Unit strengthened its new drug pipeline last year by obtaining marketing rights outside North America to *Lucentis*, a promising treatment for wet AMD being developed by Genentech.

Lucentis is a humanized, therapeutic-antibody fragment which blocks new blood vessel growth by inhibiting vascular endothelial growth factor, or VEGF, a protein that plays a critical role in formation of new vessels. In addition to the use of *Lucentis* as monotherapy, the drug may have potential as a combination therapy together with *Visudyne*.

During 2003, the Ophthalmics Unit narrowed its strategic focus, and concentrated marketing resources to core brands with high growth potential, by pruning about 50 brands, or roughly one-fourth of the overall portfolio. Heading into 2004, these moves leave the Ophthalmics Business Unit with two strong branches the AMD franchise with *Visudyne* and *Lucentis*, and Core Brands.

The Unit also integrated its operations more closely with the Pharmaceuticals Division by moving global headquarters from Buelach, Switzerland to Basel and its US head office from Duluth, Georgia to New Jersey, close to the head office of the US Pharmaceuticals Division in East Hanover, New Jersey.

In October, *Visudyne* was approved by regulatory authorities in Japan for treatment of all types of lesions associated with wet AMD. The laser also used in treatment was approved separately in early December. Work toward reimbursement is continuing and the Ophthalmic unit plans to launch *Visudyne* in Japan in 2004.

Consumer Health

In 2003 we:

Gained market segment share across all business units.

Achieved strong performance, driven by Sandoz and OTC.

Successfully launched new products in all business units, especially in the US.

Achieved substantial sales growth of +24% versus previous year in USD (+16% in LC), reaching USD 8.8 billion.

Increased operating income by +40% versus previous year in USD.

Shaping Consumer Health

The Consumer Health Division focuses on creating, developing, manufacturing and marketing a wide range of competitively differentiated products that restore, maintain or improve the health and well being of our consumers. The Division, which includes our Sandoz generics, OTC self-medication, Animal Health, Medical Nutrition (including our Nutrition & Santé franchise), Infant & Baby, and CIBA Vision business units, places considerable emphasis on the development of strong, consumer oriented and trustworthy brands. Each business unit has a leading market position in growth oriented healthcare segments beyond our core pharmaceuticals business, providing essential, high quality health-related products.

In the dynamic world of consumer healthcare, aging populations are increasingly affluent and knowledgeable about their health, and the benefits of self-medication. The success of each business unit depends upon its ability to anticipate and meet the needs of consumers and health professionals worldwide.

Our mission at Novartis Consumer Health is to give a voice to the consumer in everything we do, in order to deliver accelerated sales growth and leadership positions.

	2003 USD millions	2002[1] USD millions	Change in USD %
Sales	**8 844**	7 140	24
Operating income	**1 320**	946	40
Research and development	**529**	378	40
Research and development as % of sales	**6%**	5%	
Free Cash Flow	**1 034**	882	17
Net operating assets	**6 727**	5 794	16
Investments in tangible fixed assets	**530**	361	47

	2003	2002	% change
Number of employees	**32 464**	27 552	**18**

(1) Excludes divested Health & Functional Food activities except for Free Cash Flow

Sales by business unit	2003 sales in USD millions	Change in USD (%)	Change in local currencies (%)
Sandoz	**2 906**	**60**	**47**
OTC	**1 772**	**17**	**7**
Animal Health	**682**	**9**	**3**
Medical Nutrition	**815**	**15**	**3**
Infant & Baby	**1 361**	**2**	**3**
CIBA Vision	**1 308**	**15**	**7**
Total	**8 844**	**24**	**16**

Sandoz

Outpacing our Rivals

Our generics business unit, now unified under the Sandoz brand, has become a world leader in its industry by combining organic growth and strategic acquisitions a strategy that continued to pay dividends last year.

Lek, the Slovenian generics company acquired by Novartis in 2002, provided one of the highlights of 2003 with its US launch of omeprazole, a cost-effective generic alternative to the antiulcer treatment Losec/Prilosec®. It was the world's biggest-selling prescription medicine during the late 1990s until patent protection expired. Lek had already marketed omeprazole successfully in Slovenia and certain other European markets where the drug no longer had patent coverage.

Another new Sandoz product launched last year is loratadine, a generic version of the blockbuster antihistamine Claritin® used to treat allergy.

Sales in 2003 were also fueled by buoyant demand for Amoxicillin Clavulanate Potassium (AmoxC), the generic version of the antibiotic Augmentin®. AmoxC was launched in July 2002, but Sandoz remained the sole supplier of a cost-effective generic alternative for several months following a US court ruling invalidating certain Augmentin® patents challenged by Sandoz.

Investing for Global Cost Leadership

While Sandoz already markets more than 400 generic products, a steady stream of new products is crucial to success. The next few years are expected to spur rapid growth in the global generics market, where annual sales have reached USD 60 billion. Blockbuster medicines representing combined annual sales of USD 20 billion will lose patent protection between 2004 and 2006, offering lucrative targets for generic manufacturers.

Worldwide sales in the generics retail market are projected to climb at an average annual rate of 10% between 2003 and 2008, slightly higher than the 8.4% growth projected for patent-protected prescription drugs during the same period. To make the most of that opportunity, Sandoz already has applications pending with US regulators, seeking authorization to launch more than 40 new generic products once patents expire on the original branded medicines.

Speed of development is crucial to success in generics. Underscoring its global reach, Sandoz has one of the industry's biggest development programs, with teams of scientists now based in India and Slovenia, as well as the US and Austria.

Vertical integration at Sandoz also provides valuable synergies and a nimble production network that speeds the flow of new products to market. Sandoz is a major producer of bulk active pharmaceutical ingredients, including anti-infectives, where it ranks as world leader in bulk amoxicillin penicillins as well as the cephalosporin 7-ACA business.

As the generics industry becomes increasingly global, cost leadership is essential for success. Sandoz has invested about USD 100 million in recent years to upgrade its plants in Austria and Slovenia, and new factories are also under construction in India and Poland.

Protecting First Mover Advantage

In the fiercely competitive US market, prices of original, patent-protected medicines can fall significantly following the introduction of generic competition. This is partly the result of a complex system of legislative incentives to encourage the development of cost-effective generic products. However legislation leads to frequent legal disputes.

AmoxC is an example of how battles in court usually precede battles in the market. The key US patents on Augmentin® were due to expire in 2002, but GlaxoSmithKline PLC (GSK), which discovered and developed the antibiotic, claimed that additional patents provided another round of coverage lasting until 2018.

Sandoz challenged the patents extending beyond 2002, and in May 2002 the US District Court for the Eastern District of Virginia agreed and invalidated them. Sandoz launched AmoxC two months later, and this confident move was vindicated when, late last year, the Court of Appeals for the Federal Circuit affirmed the earlier District Court ruling.

"Being first or second to launch is crucial in the US," says Dr. Harald Summer, Project Manager for AmoxC at Sandoz. "Sales crumble very rapidly if several generic players are on the market and experience has shown that if you are third to launch, you are almost too late."

Lek was also forced into the courts to defend its procedure for the synthesis of omeprazole, which the Slovenian company began developing in 1997. Shortly before Christmas last year, the Board of Appeal of the European Patent Office upheld the validity of Lek's European patent, which protects the manufacturing procedure for synthesis of omeprazole. In all, Lek holds five patents covering the process in the US as well as Europe.

Global Network, Global Success: Rebranding Generics

In January 2003, the industry experience, production skills, and product portfolios of our 14 individual generics companies were merged to create a unified world-class entity. The generics unit was relaunched under the well known name Sandoz, previously used by one of the predecessor companies that merged to create Novartis in its present form. The Sandoz name stands for quality and reliability of supply.

The clear objective: to better take advantage of synergies in production (the importance of global production networks for multinational companies cannot be overestimated), supply chain management, sourcing, and drug development and registration. We are also aiming to consolidate our overall leadership position by joining forces and speaking with one unique and strong voice.

The re-branding process will be completed in 2005, except for the integration of Lek, which will remain a separate Slovenia-based brand for the time being.

With global headquarters in Vienna, at the crossroads of Eastern and Western European cultures, Sandoz is well positioned as a global industry leader in the generics business. Sandoz is looking to attract talent and, local expertise from diverse markets. Harnessing diversity is a key to market penetration, and at the new headquarters in Vienna, 15 nations are already represented among the associates, whose numbers will increase further in 2004.

As well as consolidating our existing position, we are continually looking to increase our global market segment share, and have recently broadened our operations through several strategic site acquisitions.

Antibiotics remain an important priority. The Amifarma S.L. plant in Palafolls, Spain, which we acquired in December 2003, offers us an opportunity to strengthen our leading position in the sterile penicillins segment. Providing freeze-drying technology and expanding production capacity of sterile antibiotics, the plant is an ideal complement to our existing center of excellence for oral semi-synthetic penicillins in Spain, the state-of-the-art Les Franqueses site.

Sandoz also plans to leverage its global influence in industrial antibiotics by moving further downstream, into the development of finished, retail antibiotics.

Furthermore, Sandoz intends to build on its competitive advantages in the development and production of highly promising Biopharmaceuticals.

Sandoz continues to be driven by proven marketing expertise and strategic acuity, but the global leadership role will be strengthened through the increased efficiency which comes from centralizing under the Sandoz brand.

Over-the-Counter (OTC)

The Value of Global Brands

All over the world, rather than turn to a doctor, people increasingly prefer to find their own solutions to their most common medical conditions. There are many reasons for this. They include pressure on government health funding, higher individual expectations for personal well being, a rising confidence in self-care, and increasing availability of prescription products in OTC formats. Nowadays people are looking for innovative, effective and accessible OTC medicines with which to enhance their overall health and well being, and they are finding the medicines they want in a widening range of outlets.

Elke Winter lives in Munich, Germany and works in marketing. Her rewarding but physically demanding job involves traveling the world organizing seminars and trade shows from Asia to the US. But Elke has a history of back trouble, and nearly four years ago was diagnosed with a slipped disc. The orthopedic clinicians decided not to operate, but put Elke into a clinic for treatment.

After this she felt much better, but continued to suffer back pain from time to time. She tried a Novartis OTC product that she had heard about, *Voltaren Emulgel*, and now continues to use it regularly. "If I feel the pain coming on and I apply *Voltaren Emulgel*, I only have to wrap myself up in a blanket and I feel better," says Elke. This is progress indeed. As Elke, a keen sportswoman added: "During the times when I was badly in pain I really considered quitting my job. Now I am back doing everything again. And when I need to lift something heavy, there is always someone there to help!"

Building a Bigger Picture from Smaller Pieces

Similar stories reach us from people all over the world, describing the many small but significant ways in which Novartis OTC products are improving the quality of life of many of our consumers.

When one consumer called us up asking if he could make a commercial for *Lamisil,* we were obviously a little surprised, and asked him why. He explained that he had reached the age of seventy, and had suffered from athlete's foot since he was a boy. "I have tried several products, but to no avail," he told us. "But then, my son told me to try *Lamisil*. I did, and it worked. Now I am really happy about that, I feel like a million dollars. I just want to let the world know how great it is by doing a TV commercial for you!" *Lamisil* is the only treatment for athlete's foot which is approved by the US Food and Drug Administration (FDA) for a seven-day treatment, while competitive products usually require multiple applications per day for several weeks.

Milagros German is a beauty queen in the Dominican Republic. She is something of a national celebrity. In a recent interview she was asked to name the ten most important things she carries in her handbag. Included on her list among the indispensable cosmetics was a Novartis OTC product, *Otrivin*, a nasal decongestant.

Global success with global brands means enhancing our customers' lives. Our brands bring relief from the symptoms of the most common ailments almost everywhere, every day. By focusing on the strongest brands and creating global consistency for them, Novartis is building on its marketing strengths and improving both patient benefit delivery and profits.

Novartis OTC Medicines

The Novartis OTC Business Unit manufactures and distributes products for the treatment and prevention of common medical conditions and ailments, to enhance people's overall health and well being. Treatments are marketed in key product categories: cough, cold and allergy; gastrointestinal; dermatological; analgesics; vitamins, minerals and supplements; venous disorder; and smoking cessation. Overall performance in 2003 saw successes for five global brands. *Lamisil*, the one week treatment for athlete's foot posted strong sales growth of 16%. *Voltaren Emulgel* the topical analagesic for muscle pain, strengthened its number one position within the category. *Nicotinell/Habitrol* our smoking

cessation franchise, increased sales by 49% over 2002 *Otrivin,* the nasal decongestant is close to market segment leadership on a global basis. Building on the long tradition and significant equity of the Sandoz name, the Business Unit is committed to driving *Sandoz Calcium* to a USD 200 million brand.

Going Global with Five Brands

Given their success it is not surprising that *Voltaren*, *Lamisil, Nicotinell/Habitrol, Sandoz Calcium* and *Otrivin* have been selected to become the first "official" global brands. Each will benefit from increased spending in research and development (R&D), increased advertising and promotion, and the commitment of a Global Brand Team (GBT) to drive their success. Our goal is to achieve continuous and sustained combined growth of 10% for these five brands. Mike Prebenda explains what sets them apart from the other 155 brands in the Novartis OTC portfolio.

"A global brand is one that has a solid presence in two or more of the four regions around the world, and possesses strong growth and profit potential."

Beyond a global presence, the brands were evaluated on other criteria including profitability, potential for growth and a significant competitive advantage or opportunity. Strong brands, science-based products and in-house marketing and sales organizations are the key strengths that continue to drive the Business Unit forward towards the leadership objective.

Driving Brand Awareness

The growing number of distribution channels is a key feature of the OTC landscape, bringing many brand-building benefits. As well as distributing through pharmacies, our brands are available through food, drug and other massretail outlets. For example, the launch of the first WalMart "Health Screening" initiative occurred in September, in the US. Nearly 3 000 WalMart stores provided free glucose and bloodpressure screenings to 122 000 consumers, driving awareness and trial of Novartis OTC *(Benefiber, Maalox, Lamisil*) and Pharmaceuticals *(Diovan*) brands.

Two further important strategic factors are in place to secure the global foothold. The first is the proven ability to switch products from prescription to OTC, and the second is the globalization of R&D, both factors which increase efficiency dramatically.

Globalization of Research and Development

A new product development and commercialization process has been implemented in 2003, which will drive innovation in a more effective and efficient manner. A new structure provides the flexibility to closely align people and skills with projects, and to facilitate the development of technology platforms, skills, knowledge sharing and individual development across the globe. The primary OTC R&D facility is based in Switzerland, where it can operate closely with the Pharmaceuticals Division. Currently OTC R&D employs 200 associates worldwide, with local country organizations mainly managing compliance, regulatory needs and medical affairs.

For Novartis OTC the vision is global, and the emphasis now is on results. Global brands will have a more consistent look and feel, and a more focused delivery in the market place. With participation from everyone on the new multifunctional teams, time will be gained between concept and product launch. And now within the GBTs, success is being defined as one major idea with high consumer impact for each brand in each year.

Animal Health

Up and Running, Despite Arthritis

Six-year old Sasha's favorite game is chasing her playmates George and Eek around their one-acre field in Alton, New Hampshire, US. Her second favorite is dragging Jill DeCubellis for three miles around the local woods. If this all sounds a little energetic for someone aged six, that's because Sasha is a ninety-pound rottweiler and George and Eek are cats, the companion animals who share Jill's life.

A year ago Sasha started to drag her left hind leg, so Jill took her to the local veterinarian. There things took an unexpected turn for the worse. Sasha jumped up on the exam table, couldn't make it and slipped off, injuring her knee. "She was limping badly," DeCubellis said.

A Stark Diagnosis

Sasha had arthritis in her left hip, and a newly acquired torn ligament. The veterinarian recommended surgery at the Angell Memorial Hospital in Boston, where Sasha was prescribed *Deramaxx*, a new arthritis drug made specifically for dogs, by Novartis Animal Health US. Within days Sasha was limping less. Soon she was running again.

Like Sasha, our pets are living longer, and consequently suffer many of the same health problems that humans do. Until recently little attention was paid to why oncelively dogs gradually turn into couch potatoes. According to Dr. Brian Beale, veterinary surgeon and canine arthritis expert at Gulf Coast Veterinary Specialists, Houston, US: "Many dog owners don't realize their pets are suffering. They often think their dogs are just getting old. Or they don't connect subtle changes in behavior to the pain of arthritis." One in five adult dogs suffers from osteoarthritis, and untreated pain can stress a pet and impair natural bodily functions.

Once a human medication makes the news, veterinarians know their clients will soon expect the same benefits for their pets. "Novartis is raising the bar to meet those expectations," says Elaine May, Senior Product Manager, *Deramaxx*. The breakthrough drug was launched in 2003 in chewable tablet form, and is the first and only drug that controls canine pain in a way similar to the Cox2 class of non-steroidal anti-inflammatories (NSAIDS) that has revolutionized the treatment of human arthritis.

"Deramaxx makes it easier for dogs to move more freely, and be more active," says Dr. Darryl Millis, Associate Professor of Orthopedic Surgery at the University of Tennessee College of Veterinary Medicine.

Jill DeCubellis certainly agrees. Sasha has gone back to teasing George and Eek, and is straining at the leash once more, urging Jill to go further and faster on their daily walks. "It was a tough few months for Sasha," admits DeCubellis, "but her quality of life is such that she doesn't know she's sick and that's all that matters to me."

Saving, Prolonging, and Improving Animal Lives

The Animal Health Business Unit is dedicated to maintaining and improving the health and welfare of both pets and farm animals. The Business Unit is active in three areas. Pet, Farm Animal and Aqua-Health. We research, develop and commercialize leading animal treatments that meet the needs of pet owners, farmers and veterinarians, and in general, the products are available by prescription. For the Animal Health Business Unit the story continues to be one of successful new product launches, and of growth through innovation and geographical expansion.

In companion animal health, the *Deramaxx* launch quickly achieved a 21% market segment share in the US. But around the world and in other categories Novartis products have clearly led through innovation. Canine atopic dermatitis is prevalent in about 10% of dogs. Being an allergy, it is a lifelong condition, but *Atopica,* launched in 2003, relieves the symptoms without the side effects of steroids. *Fortekor* prolongs the active life of cats and dogs suffering chronic renal failure or heart disease. In the EU, *Milbemax* intestinal parasite control, with variants for both cats and dogs, achieved outstanding success. On the farm, *Agita* is an effective new product for the control of disease-carrying flies. *Vetrazine*, which controls blowfly strikes in sheep, reached its 25th anniversary, now followed by *Click,* providing season-long protection.

Future growth lies in continuing innovation fueled by responsiveness to consumers' needs. Ask Jill and Sasha!

Medical Nutrition

A New Relevance for Cancer Patients

Nutrition makes a difference to people fighting cancer. Those who keep their weight stable are known to have a better outlook, yet as the disease and the treatments take their toll, even favorite foods prove unappetizing, and the scales tend to plunge. Even a minor drop in weight can lower a person's chance of survival.

Some facts about nutrition and cancer:

1.3 million new cases of cancer were estimated for the US in 2003.

Over 3 million people are diagnosed with cancer in Europe every year.

20% of cancer patients who do not survive the disease are thought to die of malnutrition alone rather than from the direct effects of the disease.

40% of cancer patients are malnourished.

A 5% cancer-induced weight loss coincides with increased mortality of 30 50%.

A specialized nutritional formula developed by Novartis Medical Nutrition is now available to address this malnutrition problem. *Resource Support* helps cancer patients gain weight, build muscle and strengthen their immune systems.

Since its launch in 2003, the response to *Resource Support* has been tremendous. "My husband was put on *Resource Support* by his doctor, and in two weeks he has made such progress that I can hardly put it into words. He is eating again and even has energy to take short walks," is just one comment received by the US sales team.

In response to a questionnaire, another person told how *Resource Support* helped her mother who was bedbound, weak and not eating due to cancer. "She started on three servings of *Resource Support* a day, with amazing results. When she walked into the clinic for her next visit, the oncologist and the nurses couldn't get over the difference," she related.

Resource Support is a high-calorie formula with a unique blend of nutrients designed to boost the immune system and help rebuild muscle. Proteins and specific essential amino acids, vitamin E and omega-3 polyunsat urated fatty acids act in concert to promote weight gain, while improving patients' tolerance to cancer treatment such as radiotherapy and chemotherapy. The outcome is what patients value most highly: being physically and emotionally prepared to fight the disease.

Fit for Surgery

Surgery and trauma often plunge the body into a state of immune-suppression, exposing patients to a greater risk of infection. "Despite significant advances in surgery, post-operative complications, particularly infections, remain common, adding to the length of hospital stay, healthcare costs and potential mortality," says Mr. Alistair Windsor, Consultant Surgeon, St Mark's Hospital, Harrow, UK. For this reason the surgical community is increasingly taking notice of the benefits of nutritional products containing specific substrates.

IMPACT, an immune-enhancing formula developed by the Medical Nutrition Bussines Unit originally for the critically ill, has been at the forefront of this interest. *IMPACT* has also been widely investigated with surgical patients. Further research has extended its use before surgery, thereby providing a boost to the immune system to counter the slump that follows the operation.

"The major cost of surgical complications, particularly infectious complications, is due to prolonged hospital stays," said Dr. Luca Gianotti, Department of Surgery, University of Milano-Bicocca, Monza, Italy at the 2003 annual meeting of the Surgical Infection Society Europe. "The benefit of immunonutrition *[IMPACT]* is mainly in reducing the rate of infectious complications. The cost of providing a pre-operative immune-enhancing diet was more than offset by the reduced length of stay." Dr. Gianotti's research findings showed that immunonutrition reduced hospital stays following GI cancer surgery by nearly two-and-one-half days, from 14 to 11.6. The findings also showed a halving of

postoperative infections from 30% to 14%, as a result of the new diet.

By being "fit for surgery" with appropriate nutrition, patients can look forward to returning home sooner.

Going Global

As nutrition gains recognition in medical practice, Novartis has remained one step ahead and expanded the medical nutrition business in a big way. In December 2003, Novartis announced its intention to acquire the brands, trademarks, patents and intellectual property assets of Mead Johnson & Company's global adult medical nutrition business. Mead Johnson & Company, a subsidiary of Bristol-Myers Squibb Company, is a leader in sales and marketing of adult medical nutrition products.

Successful completion of the transaction will offer Novartis Medical Nutrition a strong presence in the fastgrowing US retail channel for medical nutrition products, expand its existing institutional medical nutrition business and enhance its access to the Japanese market.

"The acquisition of Mead Johnson & Company's adult medical nutrition business reconfirms our commitment to delivering high quality products that help people maintain good health, recover from illnesses more quickly, and build the strength and vitality to combat disease," says Michel Gardet, Global Head of Novartis Medical Nutrition. "Enhancing our medical nutrition portfolio will allow us to better serve the needs of the growing outpatient and aging populations."

Headquartered in Evansville, Indiana, US, Mead Johnson & Company will continue to manufacture and supply the majority of the acquired products for Novartis on an ongoing basis. Sales of the products in the process of being acquired exceeded USD 220 million in 2002.

Expansion is not entirely new to the medical nutrition unit. In June 2003, its range of products received a boost with the acquisition of Semper Clinical Nutrition, a business with whom Novartis has enjoyed a successful alliance since 2001. Semper is the second largest medical nutrition business in the European Nordic region with sales of approximately USD 10 million.

With expansion comes reorganization and, as from August 2003, the Medical Nutrition Business Unit has further globalized its activities and functions. One way to accelerate the time to market of its new product innovations is by spreading the R&D for both the existing product portfolio and the growing number of disease-specific products strategically across continents. The leading unit for R&D is now in Minneapolis, and is charged with research and product development, while the Clinical Sciences group responsible for driving pre-clinical and clinical studies continues to be based at the Business Unit's global headquarters in Nyon, Switzerland.

The Unit's aim is to become a leader in disease-specific nutrition in selected areas including oncology, digestive health, diabetes and wound care, while continuing as market leader for nutritional solutions in the management of dysphagia and the critically ill. This is being achieved by identifying market requirements and developing innovative products that meet the different needs of patients and healthcare professionals. It is undoubtedly a tall order, but one that the medical nutrition business is set to deliver.

Infant & Baby

Healthy Eating Starts Early

Gerber's landmark Feeding Infants and Toddlers Study (FITS), the results of which were published in 2003, during its 75th anniversary year, provides hard evidence of a serious nutrition problem among the youngest segment of the US population. According to the study, large numbers of infants and toddlers are already showing signs of the same unhealthy diet followed by many adults. FITS revealed that on any given day, 25 to 30% of children between 7 and 24 months eat no fruit, and 20 to 25% do not eat vegetables. French fries are the most commonly consumed "vegetable" for children of 19 to 24 months.

Commissioned by Gerber, FITS is the largest survey ever of eating habits and nutrient intakes of American children from 4 to 24 months. The two-year study of over 3 000 children is also the first of this magnitude to apply the Institute of Medicine's new Dietary Reference Intake standards to this age group.

As an accomplished dietitian and Gerber's Director of Nutrition Sciences and regulatory affairs, Dr. Kathleen Reidy was not overly surprised by the FITS results. However, that did not make the recent findings any less urgent for Dr. Reidy and others who are concerned about the growing epidemic of childhood obesity.

"Since we unveiled FITS at an American Dietetic Association conference in October 2003, the interest from health professionals and the media worldwide has been beyond our expectations," explains Dr. Reidy. "We have a tremendous opportunity here to alert the public that lifelong eating habits start at an early age, and that it's critical to teach our children healthy eating habits right from the start."

Dr. Reidy praises the extreme dedication and quick action of FITS Project Leader, Dr. Paula Zeiger and other Gerber associates in spreading the word. Actions range from a high-profile conference in Washington, D.C. to a series of ten comprehensive research papers published in a special supplement to the Journal of the American Dietetic Association in January 2004.

The FITS findings received wide media coverage in North America with features in over 100 major market newspapers, and placements in national magazines and broadcast outlets. Word spread like wildfire around the world, further fueled by hundreds of websites.

Reducing Childhood Obesity

While it is too early to evaluate the full impact of the Gerber study, Dr. Reidy is confident that nutrition education initiatives that provide parents with concrete and actionable advice can make an important difference in children's lives. She recalls one young mother who, after hearing the study results, told her: "I didn't feed my baby a vegetable yesterday...I think I'll do that today."

But Gerber's achievements in 2003 were not confined to the publication of the FITS results, and building further on its long-standing reputation of commitment to babies and their families, the company successfully continued the development of its Start Healthy campaign. This education and research initiative aims to reduce childhood obesity, and has been supported by Tommy G. Thompson, Secretary of the US Department of Health and Human Services. During 2003, the campaign was launched in Mexico and Puerto Rico, where Gerber built on existing partnerships with pediatric associations and government organizations. In Israel, a Start Healthy magazine was launched and circulated among health professionals and consumers.

Marketing Initiatives in 2003

Furthering its position as an innovative industry leader, Gerber converted from glass to plastic packaging for fruits, resulting in an outstanding performance of Gerber Products in the US.

Consumer and customer satisfaction were, as always, top priorities. The company earned the highest industry rating for consumer satisfaction from Planet Feedback, a web-based survey organization, in recognition of the 24/7, one-on-one assistance offered by the Gerber Parent Resource Center. But perhaps the most impressive accolade came from the original Gerber Baby herself, Ann Turner Cook, whose childhood image has been used to represent Gerber from the start, and with whom the company worked closely during its 75th anniversary year. Ms. Cook, now a grandmother and mystery writer said: "I'm delighted to be associated with a company that has done so much for children and continues to do so."

CIBA Vision

Innovation in Focus

Discovering *Focus NIGHT & DAY* continuous-wear lenses can be quite enlightening. At CIBA Vision we know this from the many testimonial emails we receive via our web-site.[(1)] For one correspondent, using *Focus NIGHT & DAY* continuous-wear lenses for up to thirty nights and days was just such an experience. "Before, I couldn't get out of bed in the morning without first putting on my glasses," the email enthuses. "Now when I wake up in the morning and look out of the window, I can see!"

(1) www.nightanddaycontacts.com/html/testimonials.shtml

For the many people with impaired eyesight, a dream has come true. They no longer worry about the inconvenience of wearing glasses. For anyone who does not need glasses this must seem like a big deal about nothing, but for those who wear them regularly, it is almost a miracle.

Focus NIGHT & DAY contact lenses are the result of dedication to research and development (R&D) at CIBA Vision. A continuous flow of innovative advances in contact lens and lens care products is brought from the labs to the consumer. And once on the market, work does not stop. One of the latest achievements is US FDA approval of *Focus NIGHT & DAY* for therapeutic use as a bandage lens. Other achievements in 2003 include the launch of a number of new product additions to the CIBA Vision range of leading brands of cosmetic and color lenses. *FreshLook Dimension*s, the new generation of enhancing color contact lenses designed specifically for light eyes, was launched in June in the US, as well as two new *FreshLook ColorBlends* colors, Pure Hazel and True Sapphire. These provide a more intense eye color change than other *FreshLook ColorBlends* colors.

Customer comfort plays an important role in new lens care product developments. *SOLO-care AQUA* is the latest generation of no-rub multipurpose lens care solution and was introduced in Europe in 2003. Its *HydroLock* formulation includes Provitamin B5, which is also used in hair care and wound healing products to lock in moisture. In addition, every bottle of *SOLO-care AQUA* comes with a specially designed *MicroBlock* antibacterial lens case that kills bacteria and other microorganisms on contact and resists the growth of new bacteria.

AOSEPT saw a number of new developments, with *Clear Care* (in Europe: *AOSEPT Plus*) receiving FDA approval for several new applications, becoming the fastest growing contact lens solution in the US.

The driving force behind the flow of innovations is the team at CIBA Vision. Lynn Winterton is one example. A Distinguished Research Fellow and a member of the CIBA Vision Lens R&D team, he was honored with the Novartis Leading Scientist Award in 2003. This award recognizes Novartis R&D scientists worldwide for creative and innovative achievements. Lynn, who has been with CIBA Vision for almost twenty years, was recognized for his key role in the development of plasma surface coatings for *Focus NIGHT & DAY*. Over the course of his career, Lynn has been named as an inventor on nineteen US patents and has another twenty-six patent applications pending. "I was so surprised and honored to receive the award, which I consider to be an award for CIBA Vision as a whole," Lynn said. "Nothing I've accomplished has been without the help of countless other people, so I feel very blessed to be working with such amazing people here at CIBA Vision. I am proud that our innovation was recognized."

CIBA Vision associates always go the extra mile in their support of people affected by bad eyesight. They and the company contribute regularly to vision-related community organizations including The Guide Dog Foundation for the Blind, The Center for the Visually Impaired, Prevent Blindness, and Project Read, a program which provides recordings for the blind and dyslexic. Associates at CIBA Vision share in one mission: "better eyes for a better life" for our delighted email correspondents and for millions of others around the globe.

Corporate Citizenship

Rolling Back Malaria

During the rainy season of 1999 2000, South Africa was racked by a major malaria epidemic. KwaZulu-Natal province, home to 9.4 million predominantly poor people, had been left virtually defenseless against malaria because the main weapons had stopped working. Malaria parasites had developed resistance to the antimalarial medicines on which the province traditionally relied. Studies showed that sulfadoxine pyrimethamine or SP, first-line therapy for more than a decade, was curing only one in every ten patients. Moreover, the epidemic was being spread by a lethal species of mosquito Anopheles Funestus which had not been seen in KwaZulu-Natal for more than 50 years. The invading mosquitoes were resistant to the insecticides which the province had adopted a few years earlier.

To handle the flood of malaria patients at Ndumo, a small clinic near the border with Swaziland, South Africa's defense forces erected a tent clinic staffed by army nurses. From there the most serious cases were despatched to Mosvold hospital, over thirty miles away. Mosvold serves 100 000 people scattered across 1 000 square miles, and was reeling under the burden of 500 malaria patients a day. This was double the normal out-patient caseload for all diseases combined.

At the peak of the epidemic, about half of Mosvold's 250 beds were filled by malaria patients. Sharing beds was common and dozens of patients took refuge on the floor of the hospital's physiotherapy center.

"We had patients spread all over the place, day and night; mothers with small children, people lying unconscious, having convulsions or vomiting," says Dolly Makhunga, a veteran outpatient nurse at Mosvold, shaking her head at the memory.

"It was a crisis and we had to do something urgently," recalls Professor Ronald Green-Thompson, Head of KwaZulu-Natal's Department of Health.

A Bold Strategy

The prescription was a bold strategy in a seemingly hopeless situation. Professor Green-Thompson replaced the ineffective antimalarial drugs he and his team had been using with *Coartem*, a promising new medicine from Novartis. *Coartem* is a fixed combination that includes lumefantrine and artemether, a chemical derivative of artemisinin, a plant extract used for centuries in traditional Chinese medicine to treat malaria.

Artemisinin derivatives remain the most potent killers of malaria parasites yet discovered. In clinical studies, *Coartem* demonstrated cure rates above 95 percent, even in areas of multi-drug resistance. Though *Coartem* had not been widely tested in sub-Saharan Africa, South Africa's Medical Control Council completed a rapid regulatory review of the medicine during 2000, enabling KwaZulu-Natal to launch the drug as first-line antimalarial therapy in January 2001.

Harried doctors and nurses at the epicenter of the epidemic feared the worst. "We didn't know if this was going to work or not. The cat had got so much out of the bag, it didn't seem that even an effective new drug was going to work miracles," recalls Dr. Hervey Vaughan Williams, Medical Manager at Mosvold Hospital.

Yet against all odds, the switch in therapy plus the resumption of spraying with DDT managed to quell KwaZulu-Natal's malaria outbreak faster than almost anyone believed possible. Hospital admissions thinned and during the following two years, both the total number of malaria cases and associated deaths reported in the province shrank by more than 90 percent from 42 284 cases and 342 deaths in 2000, to 2 345 cases and 16 deaths in 2002.

A Beacon of Hope

Success in rolling back malaria has made KwaZulu-Natal a beacon of hope at a critical point in the battle against a disease that causes an estimated 350 million infections and more than one million deaths worldwide every year.

Dr. Richard Feachem, Executive Director of the Global Fund to Fight AIDS, Tuberculosis and Malaria, warns that malaria has become more difficult to control over the past two decades, as drug-resistant forms of the disease have spread across tropical Africa and even reappeared in some regions where it had been virtually eradicated.

"Paradoxically," Dr. Feachem adds, "effective tools are now available to control malaria and to reduce dramatically malaria-related mortality among vulnerable groups such as children under five and pregnant women. It's not that we can't do it," he says. "We're just *not* doing it."

However, "doing it" requires political will in the form of well managed malaria control programs in countries where the disease is endemic. It also requires ample donor funding, such as the multi-million dollar grants now beginning to flow from the Global Fund, to pay for effective malaria treatment and prevention programs. They cover everything from drugs and rapid diagnostic tests to insecticide-treated bednets.

In a financial lifeline to developing countries, Novartis and the World Health Organization (WHO) are making *Coartem* available at cost under a unique public-private partnership. Moreover, Novartis and Medicines for Malaria Venture, a not-for-profit health organization, are jointly developing a pediatric formulation of *Coartem* which will be easier for children to take and could make treatment more effective by improving compliance.

The WHO now recommends that countries adopt artemisinin-based combination therapies (ACT), such as *Coartem*, "when there is strong evidence that existing conventional medicines are no longer working."

Several countries in sub-Saharan Africa are following that advice. Zambia revised its national malaria-control policy during 2002, adopting *Coartem* as first-line treatment. Other countries, from Mozambique and Burundi to Swaziland and Sudan, have added ACT options to their national malaria policies, or are considering use of *Coartem* in emergency settings, such as refugee camps, where drug-resistant malaria is often rife.

In addition to the agonizing death toll, malaria costs sub-Saharan Africa an estimated USD 12 billion a year in lost economic growth. Preliminary health-economic analysis of the KwaZulu-Natal data suggests that while *Coartem* therapy is more expensive than the older treatments (USD 2.40 per adult treatment course at the preferential WHO price for *Coartem*, versus 10 – 20 cents for sulfadoxine pyrimethamine (SP) or chloroquine), total treatment costs with *Coartem* are significantly lower, due to the dramatic reductions in the overall number of patients needing treatment and in the number of complications requiring hospitalization.

"The *Coartem* approach has clearly been cost effective. Even if the unit costs are more, total costs are less," Professor Green-Thompson explains. "But the ultimate equation is not in currencies but in human lives."

Corporate Citizenship at Novartis

Novartis tirelessly aspires to responsible and conscientious global citizenship based on trust, transparency and accountability. This involves active societal engagement in areas where we have expertise and know-how to contribute, helping proactively where help is most needed, and establishing and implementing transparent ethical standards, policies and processes across all of our activities. Novartis applies all of its ethical standards globally and often exceeds the provisions of national standards and legal regulations.

Our primary and most important mission is to discover, develop, sustainably produce, and distribute high quality medicines, addressing unmet medical needs. We want to provide affordable, and thus accessible, well established treatment options to the best of our abilities and as far as our resources permit, for as many people as possible. By pursuing these goals we can best provide value to our customers and to society as a whole.

Our second mission is to try to help on a case by case basis where there is immediate need with products, funds, and other supportive measures. This encompasses free or subsidized treatment programs in developing countries, discounts and support programs for people without adequate medical insurance or other means in industrialized countries, as well as *ad hoc* donations addressing special needs such as leprosy, tuberculosis and disaster relief in various parts of the world (see table on page 52).

Thirdly, we have established a comprehensive set of policies and guidelines defining all important areas of Corporate Citizenship. This includes our Policy on Corporate Citizenship based on the obligations we endorsed by signing the United Nations Global Compact, our Code of Conduct, and our five Corporate Citizenship Guidelines. These Guidelines address: Management of Corporate Citizenship, Fair Working Conditions, Business Ethics, Human Rights, and Third-Party Management (see detailed sections and the table on page 57-58). Each of these policies and guidelines has been, or is currently being rolled out, supported by training and test programs.

Novartis Access to Medicine Projects 2003

Project	Objective	Target Region	2003 market price USD millions	2002 market price USD millions	New patients reached in 2003	Patients reached since launch
Malaria/WHO	Providing *Coartem* at cost for public sector use	Africa, Asia, Latin America	4	1	460 000[1]	650 000
Leprosy	Eliminate leprosy by 2005 by providing free MDT-treatment[2] through WHO	Global	4[3]	7	600 000	2 500 000

Project	Objective	Target Region	2003 market price USD millions	2002 market price USD millions	New patients reached in 2003	Patients reached since launch
Tuberculosis	100 000 FDCs (Fixed Dose Combinations) donated annually for five years	Tanzania	0		Initiated Dec. 2003	
Novartis Institute for Tropical Diseases (NITD), Singapore	Discover novel treatments and prevention methods for major tropical diseases and make available without profit(4)	Developing world	10	10		
Novartis Foundation for Sustainable Development (NFSD)	Work at policy and field level to improve access to healthcare for the world's poorest people. Supports programs which deliver a range of services such as psycho-social support for AIDS orphans, and rural health insurance.	Developing countries	7	7	n/a	n/a
Patient Assistance Programs (PAP); excl. *Gleevec/Glivec*	Assistance to patients experiencing financial hardship, with no third-party insurance coverage for their medicines	US	128	81	140 000	340 000
Gleevec US PAP	Within Novartis capabilities, continue to ensure access for patients who cannot afford the drug in the US	US	78	52	1 600	5 200
Glivec Global PAP	Within Novartis capabilities, continue to ensure access for patients who cannot afford the drug in the rest of the world	Global	60	29	1 900	2 900
Together Rx/Novartis Care Card	Prescription savings program for elderly low income Medicare recipients without other insurance	US	60	30	1 200 000 enrolled	230 000 used Novartis drugs
Emergency Relief	Support of major humanitarian organizations (emergency medical needs)	Global	19	15	325 000	1 300 000
Blindness	Donated intraocular lenses to NGOs for cataract surgery for patients with inadequate means	Developing countries	1	1	34 500	65 000
Health Alliances	No longer classified as access-related in 2003	Global	0	22	n/a	n/a
Total		**Worldwide**	**371**	**255**		

(1) Shipments of 1.3 million treatments made in 2003 are expected to reach malaria patients in 2004.

(2) Multi Drug Therapy Treatment.

(3) Reduced cost of leprosy program can be attributed to the success of the program leading to a reduction in the number of patients.

(4) Many research projects currently planned at the NITD would, by normal commercial standards, not gain funding.

Half a Million Tuberculosis Treatments Free

In 2002 more than 1.6 million people worldwide died of tuberculosis, making this disease the third biggest threat to human life, exceeded only by HIV and ischemic heart disease. In Africa, all attempts in recent years to control tuberculosis have been severely impaired by limited access to effective treatment. Now, with the help of a Novartis donation, half a million of the world's poorest tuberculosis patients are to receive the best available treatment, as recommended by the WHO. Under an agreement signed on December 19, 2003, by the WHO and Novartis, the drugs will be provided over a five-year period to countries scaling up tuberculosis control, with support from the Global Fund to Fight AIDS, Tuberculosis and Malaria.

The tuberculosis medication provided through this program consists of four different drugs (rifampicin, isoniazid, ethambutol, and pyrazinamide) in one tablet, in a fixed-dose combination for the first two months of treatment, and two drugs (rifampicin and isoniazid) in one tablet for the four-month continuation phase. This offers significant advantages over single drug regimens. Patients take just two or three tablets each day in the intensive phase of treatment rather than the 12 to 14 needed before, greatly improving the likelihood of compliance. The fixed-dose combination also lowers the risk of drug resistance and prescription errors as well as reducing the necessary duration of therapy from eight to six months. Novartis will provide the fixed-dose combination tablets in blister packs within specially designed patient kits. Blister packs protect the drugs from heat, moisture and insects, and improve patient compliance while the kits help to simplify logistics.

This donation brings together key players involved in tuberculosis control measures and programs. Health ministries provide political commitment and appropriate health policies; the WHO and the Global Tuberculosis Drug Facility contribute technical support at a country level; the Global Fund and other donors make resources available to enhance tuberculosis control efforts; and Novartis produces and provides the necessary high quality medicines.

Novartis Human Rights Guideline Established

Globally operating companies can and should play a considerable role in promoting human rights in many parts of the world. Sustainable economic activity contributes towards providing environmental and industrial climates in which human rights can more easily flourish. Furthermore, in countries where the government is unwilling or unable to uphold its human rights responsibilities, global companies can choose to adhere to international rather than local standards thereby setting powerful examples. No reasonable person would dispute that corporate activities must be managed in a manner that upholds the rights of employees and recognizes the circumstances of the cultures of the local communities in which they operate. The issue at stake is to define the reasonable boundaries of the human rights responsibilities of business enterprises. It is relatively easy to determine where they begin. A company should adopt explicit corporate guidelines on human rights and establish procedures to ensure that all business activities are examined and monitored in respect to their alignment with human rights concepts. This Novartis has done.

In November 2003, we published new Corporate Citizenship Guidelines with regard to human rights. The purpose of these Guidelines is to define our commitment to "support and respect the protection of internationally proclaimed human rights."

Obligations in the Context of Civil and Political Human Rights

The civil and political rights of the Universal Declaration of Human Rights (UDHR) are, above all, essential responsibilities of states and their institutions. But the preamble of the UDHR stipulates that "every individual and every organ of society" should respect and promote these rights. Novartis perceives itself as an "organ of society" and therefore accepts, to varying degrees, human rights related responsibilities. The prime responsibility for Novartis is to ensure that its corporate activities do not contribute directly or indirectly to civil and political human rights abuses, and that the company, under no circumstances, will knowingly benefit from such abuses.

Obligations in the Context of Economic, Social and Cultural Human Rights

The respect and promotion of economic, social and cultural rights is an essential part of the duties of states and regulatory authorities. Compared with civil and political rights, which aim to prevent state interference with individual freedoms, these positive rights are more difficult to enforce, as their implementation requires the material support of responsible stakeholders.

Today, many rights contained in the UDHR are not enjoyed by a large number of poor people. The lives of more than 1.2 billion people living in absolute poverty are characterized by the sad fact that their right to adequate food, clothing, and housing as well as their right to the highest attainable standard of physical and mental health remain unfulfilled.

The sheer scale of today's global poverty problems makes it obvious that private companies can only contribute towards the support and respect of economic, social, and cultural rights in the context of their normal business activities. Economic and social rights such as the right to work (Article 23 of the UDHR), the right to a standard of living adequate for the health and well being of a human and his or her family, including a right to medical care (Article 25), and the right to education (Article 26) cannot be progressively implemented without good governance, effective public services, and appropriate allocation of resources.

Novartis, however, contributes towards the fulfillment of economic, social and cultural rights by manufacturing pharmaceuticals and other products and by selling these in the market place. Novartis, like other responsible corporations, creates jobs and thus livelihoods for many people, compensates associates fairly and pays social security contributions. It buys goods, pays market prices for these and, last but not least, contributes to the financing of the community by paying taxes. However, in addition, Novartis offers voluntary benefits to employees within the framework of its Corporate Citizenship Policy, provides financial support for foundations, makes donations and contributes to the fulfillment of economic, social and cultural rights in other ways on a case-by-case basis.

Code of Conduct

The Novartis Code of Conduct is an integral part of our Corporate Citizenship effort. It contains the key rights and duties (especially personal obligations) of all associates, including their right to air grievances or complain of violations of the Code of Conduct, the Policy on Corporate Citizenship or about financial matters through the Complaints Organizations and ultimately to the Audit and Compliance Committee of the Board (the "whistleblower" provisions). The state of compliance with the Code of Conduct is annually reported on by the Group Compliance Officer to this Committee.

Cases handled by the Compliance Organization in 2003 include instances where marketing practices may not have met our stringent standards, allegations in South America of anti-trust law violations and unfair trade practices, alleged failures to comply with local law, and possible conflicts of interests.

As might be expected, a number of employment related cases and complaints relating to discrimination, harassment and unfair behavior were reported.

All issues raised are under investigation. Disciplinary action will be taken where necessary and remedial actions, including improved training, will be implemented where required.

Training tools for the Code of Conduct are used world-wide to facilitate a consistent approach. The Pharmaceuticals Division has already trained more than 60% of its associates worldwide regarding legal requirements and ethical standards, and the Consumer Health Division has started a similar program, with a rollout in Switzerland as the first step. The US organizations have developed a comprehensive web-based training regimen. This comprises 12 training modules on Code of Conduct related subjects which were implemented in 2003.

Periodic and case by case reporting on Code of Conduct topics has also been improved. Tools are now in place enabling Novartis to measure and evaluate its performance systematically vis-a-vis ethical conduct expectations. We intend to develop and adapt these tools as required by the changing environment in which we operate.

This year, our annual Compliance Survey was sent to 2 600 associates in the US and to 16 000 associates in the rest of the world. In this survey we ask our associates to provide their opinion and information about compliance with the Code of Conduct and the Corporate Citizenship Policy. In addition, we specifically remind them of the existence of the Code's complaints procedure (the right and duty of every associate to complain about violations of the Code of Conduct and of the Corporate Citizenship Policy). As intended, this reminder has triggered an additional number of complaints about possible code violations which are now being followed up.

Audit activities have been strengthened, too. There is now a standard auditing tool for compliance with the Code of Conduct that is being used in all regular internal audits, as well as for self-audits by local operating companies. Special audit procedures will be expanded next year to include the Corporate Citizenship Policy.

As a result of changes in US legislation, in 2003 we adopted an improved "whistleblower" procedure regarding complaints concerning financial matters, and an additional Ethics Code. The complaints procedure ensures that everybody can ask questions or complain about financial matters involving our businesses, even to the Audit and Compliance Committee. Our Ethics Code imposes additional ethical obligations on all our employees.

During 2004, we will focus our training, education and controls on:

- Marketing practices
- Prevention of healthcare fraud
- Human rights related issues
- Third-Party Management: working with our business partners to establish standards similar to those we observe ourselves
- Compliance with laws
- Conflict of interest issues

New Marketing Code

In 2003, our Pharmaceuticals Division implemented its own marketing code to ensure consistently high ethical standards in promotional practices throughout the world. The code supplements national and international legislation, as well as industry codes. Its ten main principles, which are also being applied in the Consumer Health Division, will be complemented by business specific provisions in all of its business units in the course of 2004. Our US marketing standards are even higher.

In order to secure adherence to this code, marketing, sales and management personnel are being trained in workshops with the help of presentations and case studies. Moreover, a self-assessment tool has been launched and a compliance organization established throughout the Pharmaceuticals Division. In 2003, various on-site audits were conducted in countries including Russia, the UK and Canada. Violations of the code in 2003 resulted in the dismissal of several associates. For 2004, further training and on-site audits are scheduled, as well as a revision of the code based on our experiences in 2003.

Results of our Corporate Citizenship Related Projects in 2003 and Targets for 2004

	Steps planned for 2003	Results 2003	Targets 2004
Access to medicine	Strengthen priority programs such as *Coartem*/malaria program.	Progress made in malaria program with the WHO; substantially increased financial engagement in key markets.	Develop pediatric form of *Coartem* (with MMV),[1] complete treatment guidelines, improve distribution to rural patients.
	Novartis Institute for Tropical Diseases (NITD) in Singapore: complete staffing. Become operational, establish networks and collaboration partners, initiate first research project.	Staffing on track, research projects initiated, first international conferences staged, external scientific reviews held.	Operational in new facilities, student training program commenced, second International Symposium in July 2004.
Policy framework			

	Steps planned for 2003	Results 2003	Targets 2004
	Add fifth guideline that addresses relationship with third parties: application of Corporate Citizenship standards to suppliers, contractors, consultants, etc.	Corporate Citizenship Guideline 5: Third-Party Management approved, implementation process started.	Focus on implementation and integration into the corporate culture; coaching of local management; internal audit of compliance.
Third-Party Management	Expand existing HSE Third-Party Management Guideline to include all aspects of Corporate Citizenship.	Corporate Citizenship Guideline 5: Third Party Management approved, implementation process started.	Inform all suppliers of our commitment and expectations; categorize suppliers; send questionnaire to key suppliers; pilot Corporate Citizenship supplier audits.
Respect for human rights	Articulate comprehensive position covering the current human rights issues affecting the industry.	Corporate Citizenship Guideline 4 on Human Rights approved, public symposium organized.	Regional human rights workshops for managers.
Code of Conduct	Develop training tool.	Developed global e-learning tool; 60% of all Pharmaceuticals associates have already participated successfully.	Expand e-learning to employees of Consumer Health.
Accountability of Management (integration in operational processes)	Execute complete Corporate Citizenship management cycle including objective setting, performance measurement and year-end incentives.	Review meetings with all global Business Units, two meetings of the steering committee. All country heads and many managers have individual targets to meet.	As in 2003. Additionally, implement Guidelines 4 and 5, and close identified gaps.
Working conditions	Strengthen programs to ensure fair-living wage, diversity and adequate dialogue with all employees.	Project with BSR;[2] diversity programs in all bigger organizations; meetings with over 80% of all employees.	Close identified gaps, establish binding process for fixing local-basic-need wages.
Fair-marketing practices	Implement detailed standards and procedures in markets around the world.	Pharmaceuticals marketing code established. Global training program started.	Follow-up training and audits in Pharmaceuticals, full rollout of modified code in Consumer Health.
Bioethics	Adopt revised ethical framework for biomedical research due to revision of Helsinki Declaration.	Policy on Communication and Publication of Clinical Research Results updated to reflect revisions. Internal process established.	Review positions on biodiversity, animal welfare and stem cells.

Involvement of employees	Roll out information program on Corporate Citizenship to all employees by mid-2003; communicate Corporate Citizenship concept to external stakeholders.	Face-to-face meetings on Corporate Citizenship with over 80% of all employees achieved by the end of 2003.	Workshops as follow-up with remaining employees and all new employees.
Stakeholder engagement	Deepen relationships with leading academic institutions, NGOs and think tanks.	Many projects/contacts established (e.g. Harvard Business School, BSR, MMV, financial markets, conferences).	Develop further platforms to intensify cooperation and joint projects with NGOs.
Transparent reporting	Continue to improve data quality and transparency for the Annual Report 2003. Adapt Corporate Citizenship reporting on the website to GRI[3] format.	Data quality of internal reporting improved, through clearer data definitions.	Make data available in GRI format.[4]
External assurance	Institutionalize independent Corporate Citizenship assurance process.	Corporate Citizenship assurance process established.	Consolidate Corporate Citizenship assurance process.

(1) Medicines for Malaria Venture: www.mmv.org

(2) Business for Social Responsibility: www.bsr.org

(3) Global Reporting Initiative

(4) www.globalreporting.org

External Ratings

Benchmarking shows that Novartis is consistently rated by financial analysts to be among the leading companies for sustainability performance. Novartis is not included in one index, the FTSE4Good. This index strongly penalizes producers of baby food at present. However, the criteria applied are currently under review. We are proud to include the Gerber baby-food business among our many strong brands.

The Novartis Foundation for Sustainable Development (NFSD)

Multinational companies operating throughout the world need to recognize the wider social, economic and environmental impact of their activities. This knowledge and understanding requires companies to be active and not reactive, for example, in health matters. Companies should as much as possible be part of the solution to a problem rather than purely observing it and being perceived as part of the problem.

The NFSD has been a leading private-sector organization for international development for 25 years and is committed to innovative, performance-related development cooperation. The Foundation is funded by the Novartis Group but works independently of the economic interests of the Group.

The Foundation aims to improve the quality of life for poor people in developing countries by improving access to healthcare through innovative development projects, think tank efforts and dialogue facilitation.

Foundation Activities

The activities of the NFSD are based on four cornerstones:

1. Supporting projects that enable the sick and poor in developing countries to improve their health situation through better access to healthcare services as a pre-requisite for both individual well being and social and economic development.

2. Assisting the Novartis Group with its use of corporate assets for the benefit of developing countries and in particular, with the delivery of donated medicines by supporting programs that enhance the uptake and health impact of these donations.

3. Contributing its knowledge of development issues to the Novartis Group and advising the company with respect to corporate-social-responsibility policies in developing countries.

4. Engaging in research and promoting dialogue around sustainable involvement of the pharmaceutical industry in the social and economic development of the poorest regions of the world.

Project Examples

The Foundation concentrates its financial and human resources on pilot projects within a manageable frame-work, where innovative solutions to health-access problems can be elaborated and where it can make a significant contribution. Examples include:

Understanding and improving access to malaria treatment in Tanzania

Enhancing financial access to basic heathcare in Mali through community-based health insurance

Developing a computer-based training tool for health workers in developing countries to improve accessibility and quality of care

Providing free leprosy treatment to patients worldwide through 2005 together with the WHO, national health authorities and Novartis

Providing free of charge 500 000 Directly Observed Treatment Short-Courses (DOTS) for tuberculosis over a five-year period through the WHO and the Global Tuberculosis Drug Facility for programs supported by the Global Fund to Fight AIDS, Tuberculosis and Malaria

Exploring ways to improve patient adherence to tuberculosis treatment

www.novartisfoundation.com

Other Novartis Foundations

Novartis US Foundation	Its purpose is to support efforts among communities, businesses and non-profit organizations on a range of social, health and education issues related to healthcare.
Novartis Foundation France	The Novartis Foundation France provides persons with difficulties due to age, illness, handicap or family environment with personal and social support.
Novartis Foundation Japan	The Novartis Foundation Japan contributes to the improvement of welfare, by aiding and promoting creative research and pursuing international exchange.
Foundation for Health, Innovation and Society (Spain) www.fundsis.org	The Foundation promotes the study, investigation, analysis and improvement of health in its ethical, biological, psychological, sociological and economic dimensions.
Novartis Venture Fund www.venturefund.novartis.com	The Novartis Venture Fund was founded six years ago with the mission to foster entrepreneurship and create new jobs, particularly for Novartis employees affected by the merger. It supports new business projects that show exemplary entrepreneurial spirit in future-oriented health science areas.
The Novartis Foundation (UK) www.novartisfound.org.uk	The Novartis Foundation (UK) is a scientific and educational charity, intended to promote scientific excellence.

Health, Safety and Environment

This section summarizes the Group's Health, Safety and Environmental (HSE) performance in 2003. Our HSE targets focused once again on reducing the number of accidents, lowering energy use/CO_2 emission, safely disposing of the hazardous waste we produce, and successfully integrating recently acquired partners and newly founded organizations. This report describes the most important measures undertaken to fulfill our ambitious targets, and discusses our achievements as well as areas in which we intend to improve. The full Novartis HSE report is available on our website at www.novartis.com/hse. There you will also find additional information on all the issues mentioned in this report.

Strong Commitment

Protection of the environment has a high priority in all our activities. We strive to make efficient use of natural resources and minimize the environmental impact of our activities and products.

Between 2001 and 2003, we set ourselves the target of reducing our direct CO_2 emission by 3% (based on 2000 emission levels). As can be seen in our report on Air Emission (see page 66) we achieved a reduction of 2.8%, in spite of a 4.8% growth in production. The reduction was facilitated by a move to more energy-efficient facilities, and has resulted in a CO_2 emission level, relative to sales, that is well below the industry average.

In light of these achievements and with the goal of further improvement, we have proposed individual energy-efficiency targets for the Pharmaceuticals and the Consumer Health Divisions for 2004-2006. We will continue to report our absolute CO_2 emission and will also include indirect emission (e.g. from electricity and purchased energy).

Our focus on energy efficiency as opposed to absolute CO_2 emission better reflects our commitment to the sustainable use of natural resources[(1)]. Energy-efficiency improvement targets for each Business Unit will be 2% per year, based on their most representative denominator (e.g. sales, production, employees). Moreover, each Business Unit must report energy-saving projects that amount to a total reduction of 1% of the previous year's energy consumption.

(1) CO_2 emission reduction could also be achieved by switching to alternative fuels or purchasing steam, without reducing energy consumption.

Enough Water for a Small City

When Sandoz, our generic pharmaceuticals Business Unit, originally acquired the Roferm S.p.A. plant at Rovereto in Italy in 1995, there was considerable room for improvement both economically and environmentally. Following the acquisition, the product portfolio was adapted to the needs of Sandoz and focused on the production of antibiotics. Investments worth approximately USD 170 million were also made in new technologies and equipment, together with logistical and environmental improvements.

In 2002, Rovereto achieved a reduction of more than 50% in halogenated VOC emission by cryocondensation, a major first step towards an HSE performance that is in-line with the highest environmental standards. During 2003, further progress was made through energy conservation and groundwater saving initiatives.

To reduce energy consumption, two new air compressors were fitted with heat recovery exchangers. The compression heat generated (2x360 kW) is now recovered and used to preheat the feed water for the plant's steam generators. This process has increased efficiency, reduced CO_2 emission by approximately 800 tonnes per year, and provided a cost saving of around USD 90 000 per year.

Rovereto's reduction of approximately 40% in its groundwater consumption during 2003 is an equally important achievement. Cooling water at the plant was previously used only once, before being discharged into the River Adige. Thanks to the investment in new technology, a recycling system has been installed that allows the water to be reused for cooling condensers and solvent recovery processes. The new system has resulted in an overall saving in groundwater consumption of around 510 m^3/h, equal to the hourly water consumption of an Italian city of 50 000 inhabitants.

Now Rovereto is looking to go further and formalize its commitment to environmental management by applying for ISO 14001 and OHSAS 18001 certification in 2004.[(2)] Kurt Gstrein, Head of HSE, Sandoz is delighted with what has been achieved at the plant: "Rovereto's success shows how HSE management can combine with top-level engineering at acquired sites to bring about exceptional improvements in HSE

performance. It is an excellent model for the integration of new partners in the future".

(2) ISO issued the international standard ISO 14001 for environmental management systems in 1996.

Successfully Protecting our Personnel

At the end of 1997, Novartis took full ownership of the Queretaro baby-food site in Mexico, a plant that had a high rate of accidents attributable to a lack of safety awareness.

Operations management invested significantly in personal-protection equipment, fire-fighting systems, alarms, sprinklers, and noise-reduction measures. Employee training was also increased, and the Corporate HSE Guidelines as well as national/international standards were instituted together with a safety-improvement plan.

These actions brought swift and sustainable results, and the Lost-Time Accident Rate (LTAR) has fallen from 1.25 in 1998, to an impressive 0.15 in 2003: proof of just how effective good HSE management can be.

Building a New Culture

The Des Plaines Illinois, US, site which manufactures the complete *FreshLook* contact lens product range was acquired by Ciba Vision in 2000. One of the major challenges since the acquisition of Wesley Jessen Corporation has been the adoption of Novartis/CIBA Vision HSE guidelines at this site. Over the last three years, thanks to the outstanding commitment of all site employees, considerable progress has been made.

HSE awareness has been raised using a variety of methods. These, combined with direct senior-management involvement in follow-up investigations of serious incidents and improved case management by site health services, have led to real improvements in on-site safety. Since 2002 the number of accidents needing first aid treatment has decreased by 38%. Accidents leading to an absence of more than one day have fallen by 78% and the number of accidents resulting in impairment of an individual's working capacity has been reduced by 46%. Over the last three years, costs associated with accident related absences have decreased by 75%.

The responsible HSE Officer, Shankar Sarkar, is enthusiastic about the site's success: "Our achievements, especially in accident prevention, have turned Des Plaines from a problem site into a role model that others can emulate."

Remediation

Since our past operations may have led to the contamination of soil and/or groundwater, we have set aside financial reserves of USD 179 million for estimated potential-environmental liabilities. In and around Basel, the local chemical and pharmaceutical industries (including predecessor companies of Novartis) have established an organization to seek timely solutions to the possible consequences of past disposal practices at a number of landfills. The objective of this organization is to eliminate acute and long-term risks through pragmatic, eco-efficient measures that are developed in cooperation with the authorities, and are based on professional studies and assessment. During 2003, progress was made in the assessment of seven landfill sites in the Basel region, two of which may soon be excluded by the authorities from further investigation. We expect the authorities to take decisions on remediation for the five remaining sites in 2005 or 2006.

Division/Business Unit Objectives and Achievements 2003-2004

Targets 2003	Results 2003	New targets 2004
Pharmaceuticals		

	Targets 2003	Results 2003	New targets 2004
	Overall Lost-Time Accident Rate (LTAR) 0.5	LTAR 0.64 Positive trend emerging	LTAR 0.5
	Prevention of drug substance release into aquatic environments from manufacturing sites	The presence of drug substances in wastewater was reduced by 49%	Further efforts towards the prevention of drug substance release into aquatic environments from manufacturing sites
	Continued implementation of HSE management procedures in line with International standards	ISO 14001 certification of four additional strategic pharmaceutical manufacturing sites, one of which also achieved OHSAS 18001	Implementation of HSE management systems at manufacturing sites comparable with ISO 14001/OHSAS 18001 standards
	Integration of Business Continuity Management (BCM) in Development and Technical Operations departments and in Pharmaceuticals business units	Reduction of key business continuity risks in Development and Technical Operations departments, and Pharmaceuticals business units	Assessment of business continuity risks for main Pharmaceuticals head offices and business units
	3% reduction in CO_2 emission (based on data from 2000)	14.5% reduction achieved, primarily through a move to more energy-efficient facilities	Improvement of energy efficiencyby 2%
			Promote health of employees by improving ergonomics of workplaces at head offices and in Development
Novartis Institutes for BioMedical Research (NIBR)			
	LTAR 0.5	LTAR 0.70	LTAR 0.5
		Research-specific risk portfolio developed	Development of a handling-classification scheme for research compounds
	Continued BCM implementation aligned with Pharmaceuticals' schedule	Vulnerability assessments of disease areas 73% complete	Develop inventory key business processes and complete two BCM plans
			Improve energy efficiency by 2%; Establish energy teams at each site; Identify and implement fast action projects for energy savings to achieve targets

	Targets 2003	Results 2003	New targets 2004
Consumer Health			
Sandoz			
	LTAR <0.8 LT	AR 0.67 (0.99 including Lek)	LTAR <= 1.0
	70 000 GJ reduction in energy consumption at Kundl, Austria resulting in a 1.6% reduction in overall Group CO_2 emission (based	Target exceeded through recent projects in Kundl, Austria with energy reduction of 68 000 GJ (compressor project), 50 000 GJ (yield	Improvement of energy efficiency by 2%

	Targets 2003	Results 2003	New targets 2004
	on data from 2000)	improvement), 70 000 GJ (municipal heating)	
	50% staged reduction in halogenated VOC emission at the Turbhe site in India by 2004	Target exceeded with a 70% reduction in halogenated VOC emission at Turbhe	
	The successful integration of Lek, Slovenia	Lek successfully integrated; HSE organization, risk portfolio and reporting established	Further improvements in Lek HSE performance
	Pilot implementation of BCM	BCM pilot project successfully conducted; In addition joint BCM approach with IT establishing disaster-recovery plan for Kundl site	Definition of scope and objectives; Organization and inventory of key business processes; Continuation of BCM implementation for defined key business processes
Over-the-Counter (OTC)			
	LTAR 0.45	LTAR 0.39	LTAR 0.45
	Ongoing reduction in energy consumption relative to production at defined sites	Economically viable energy-conservation programs implemented at major sites; Target of 2% reduction not achieved in 2003 on top of previous reductions	Improvement of energy efficiency by 2%
	Continuation of audit reviews of third-party contractors	Risk portfolios for third-party contractors completed; HSE auditing of major third party contractors; including them in the BCM target; and committing them to the Corporate Citizenship initiative	Continuation of audit reviews with four or five selected third-party manufacturers
	Pilot implementation of BCM	BCM pilot project implemented; Tools developed for the global roll out	Establishment of BCM plans for remaining main brands; completion of BCM studies of potential issues according to the strategic risk portfolio

	Targets 2003	Results 2003	New targets 2004
Animal Health			
	LTAR < 0.5	LTAR 0.53 (0.72 including NAVI)	LTAR < 0.5
	Evaluation and improvement of third-party contractors' risk portfolios	Risk control improved for several third-party contractors with high impact; Four out of five of all third party contractors audited	Completion of third-party contractor audits
	Pilot implementation of BCM	Pilot BCM study conducted according to schedule	Complete study of manufacturing and supply chain processes for five active ingredients and products; Investigate vulnerabilities at head offices
	Initiation of a project for the reduction of energy consumption and	Measures successfully implemented; Results to be published in 2004	Improvement of energy efficiency by 2%

Targets 2003	Results 2003	New targets 2004
SO_2/CO_2emission at Wusi Farm, China		
Medical Nutrition		
LTAR 1.0	LTAR 0.04	LTAR < 0.6
Ongoing reduction in energy consumption relative to production at defined sites	Both Osthofen, Germany and Minneapolis, US achieved a 2% reduction in energy consumption	Improvement of energy efficiency by 2% (or 4% over 2 years)
Continuation of audit reviews of third-party contractors	Six contract manufacturers inspected by HSE and Quality Assurance teams	Continuation of four additional audit reviews for third-party contractors
Pilot implementation of BCM	Pilot Business Continuity Study conducted, addressing all key business processes at the Osthofen site	Address major risks and develop a business-resumption plan for the Osthofen site. Carry out full-process inventory and originate business-resumption plan for Minneapolis site

Targets 2003	Results 2003	New targets 2004
Infant & Baby		
LTAR 0.45	LTAR 0.26	LTAR <= 0.33
Ongoing reduction in energy consumption relative to production at defined sites	Target 2% reduction in energy consumption partly met; Ft. Smith, US exceeded the target	Improvement of energy efficiency by 2% (or 6% over 3 years)
Continuation of audit reviews of third-party contractors	Five audits of third-party contractors completed in China	Two further audit reviews of third-party contractors, combining HSE and Corporate Citizenship issues
Pilot implementation of BCM	Pilot BCM study of Fremont, US Customer Service Center completed in full, including business-resumption plan	Continuation of BCM implementation for selected processes
CIBA Vision		
LTAR 0.6, by a reduction of 10% at every site	LTAR 0.42	LTAR 0.5
Continuation of water conservation activities	Outstanding achievements in water conservation: water recycling rate currently exceeding water consumption rate	Ongoing water conservation activities; Strengthening of leadership position in the field of water recycling
Establishment of energy-efficiency-improvement targets at major sites	Energy-conservation concepts elaborated; quantitative improvements achieved overall, mainly through energy-reduction projects in Sydney, Australia; Atlanta, US; and Mississauga, Canada	Improvement of energy efficiency by 2%

Targets 2003	Results 2003	New targets 2004
Conducting of three additional risk analyses and the establishment of an action plan at each site	Risk analysis of top three processes conducted at all sites	Recompilation of risk portfolio
Pilot implementation of BCM	Pilot study of Batam logistics conducted and joint study with IT disaster-recovery unit in Atlanta initiated	Continuation of BCM implementation for defined key business processes

Abbreviations

BCM	Business Continuity Management	KPI	Key Performance Indicator
CO_2	Carbon dioxide	LTAR	Lost-Time Accident Rate (measured as accidents per 200000 hours worked)
GJ	Giga Joule	NAVI	Novartis Animal Vaccines Inc.
GRI	Global Reporting Initiative	OHSAS	Occupational Health & Safety Management System
HSE	Health, Safety and Environment	SO_2	Sulphur dioxide
ISO	International Organization for Standardization	VOC	Volatile organic compound
IT	Information Technology		

HSE Management Procedures and Organization

Our HSE organization is focused on establishing systematic risk assessments, preventive measures and regular reviews including audits regarding the health, safety and environment performance at all our sites. It is crucial that such processes are in place throughout the organization to ensure that we continously improve HSE performance and successfully integrate new acquired sites.

Integrating our New Partner

Following our acquisition of the Slovenian-based generics company Lek in 2002, a key priority was to align standards, harmonize the HSE organizations, and synchronize the various environmental reporting processes.

Lek has the potential to significantly influence the overall Sandoz HSE data, and we were keen to preserve uniformly high standards. New HSE performance targets were set almost immediately, and thanks to the hard work, cooperation and initiative of our new colleagues at Lek, we achieved an important first step in 2003: a full report of HSE data for their 28 sites, which is contained in the HSE Data 2003 Overview Table on page 72.

The Environmentally Friendly Site

In 2002, our US pharmaceutical research was consolidated in the new Novartis Institutes for BioMedical Research Inc. (NIBRI) in Cambridge, Massachusetts, US. The first new lab complex at 100 Technology Square opened in March 2003.

NIBRI is a cause for celebration not just within the research community, but also among those who have an eye on the future of our environment. The new building has been equipped using energy- efficient technologies and environmentally friendly finishes that incorporate recycled, recyclable or sustainable elements. It has been decorated using materials produced with minimum impact on the environment, and easily dismantled office partitions and modular workstations permit reconfiguration with minimal waste.

The Headquarters of NIBRI, at 200 Massachusetts Avenue are scheduled to open in April 2004, and the formerly disused building is currently undergoing an unusual transformation from candy factory to state-of-the-art research facility.

Initiating a Cultural Shift

Certification according to ISO 14001 and/or OHSAS 18001 is an independent acknowledgement of the fact that sites are committed to implementing sound HSE management procedures, and continually strive to improve performance. While certification is a desirable objective in itself, on site, the work involved in achieving it has had a positive impact on attitudes to HSE.

The Pharmaceuticals site at Torre Annunziata in Italy has recently attained ISO certification, and Giorgio Lazza, Head of Pharmaceutical Manufacturing Italy, believes that this has made a significant difference: "During the certification process we underwent a major shift from simply observing existing procedures to an attitude of continuous improvement."

Pharmaceuticals aims to ensure that all its manufacturing sites conform to ISO 14001/OHSAS 18001 standards. Torre Annunziata (Italy), Huningue (France), Stein (Switzerland) and Taboão da Serra (Brazil) all received ISO 14001 certification in 2003. A complete list of sites with ISO 14001 certification can be found on the Internet at: www.novartis.com/hse

HSE Risk Performance Management 2003

Our two most important tools for HSE risk-performance management are our HSE risk portfolios and our HSE audits.

The risk portfolios are based on a bottom-up approach. Since 1997, our sites have been elaborating their local risk portfolios. These are consolidated at Business Unit and Division level, and finally at Group level in the Corporate HSE Risk Portfolio. This is regularly presented to, and discussed with, the Executive Committee of Novartis (ECN). In June 2003, 66 risks warranting priority action were reported. As a result of actions taken, eight priority risks from the previous risk portfolio have been declassified. Action plans for all remaining priority-listed risks have been developed and are currently being implemented. The next comprehensive risk review at Group level is scheduled for the second quarter of 2004.

As well as a control function, HSE audits serve to provide consultancy and support to our sites. During 2003, twelve corporate HSE audits and twelve Division/Business Unit HSE audits were carried out. Action programs based on the audits were defined by the sites and controlled by the Division/Business Unit; the Business Units have now completed between 85% and 100% of all necessary follow-up actions based on audits conducted.

HSE Performance and Data Management

Globally, we now have over 400 dedicated HSE specialists at our sites who are continually analyzing our risk portfolio and driving the resulting action plans forward. Together with Group senior management, they have defined key performance indicators (KPIs) for our HSE related objectives. The KPIs are based on the data input of 150 sites managed by Novartis Group companies in 2003. These include all sites with significant impact on the Group's overall HSE-related performance (i.e. all production, formulation and R&D sites). Forty-one sites reported for the first time in 2003, the majority of which originated from the Lek acquisition. Ten sites, mainly impacting our Health and Functional Food business, were sold or closed.

HSE data are collected and reviewed on a quarterly basis. The emission and resource data published in this report, and on our website, are actual data for the period from January through September 2003 and estimates for the last quarter, which will be updated in the first quarter of 2004. Significant deviations will be reported on our website and in the 2004 Annual Report. The accident and financial data are actual data from January through December 2003.

The emission and resource data contained in the Annual Report 2002 were based on actual data for January to September and an estimate for the last quarter. The estimates have since been updated, and in two areas there were major deviations from the figures published last year. Waste rose significantly due to the demolition of a large pharmaceutical building in Basel, as well as a significant amount of non-reported compostable waste in the Infant & Baby Business Unit. Halogenated VOC emission was underestimated at one of our sites in India. The HSE investments and expenses of the previous years were converted from CHF into USD at a fixed rate. To allow comparisons of the 2003 data, the figures reported in previous years have been adjusted to include only data of sites still operated by Novartis. We have corrected this data in the HSE Data 2003 Overview Table in this report (p. 72).

The reporting and management processes as well as HSE data are part of the Corporate Citizenship assurance process. This is described in the assurance report (p. 81 82). In gathering these data, we take account of the impact of activities on our premises, together with major flows of material across our boundaries. We do not currently measure third-party impact from the manufacture of purchased goods, energy production or transportation.

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Due to the many intangibles in healthcare value assessment of pharmaceutical products and the regulatory impact on many aspects of a pharmaceutical product's life cycle, we have not implemented a systematic, life-cycle-assessment management process for Novartis.

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2003 Data

Divisional split based on 2003

	Pharmaceuticals		NIBR		Consumer Health												Novartis Group[6]				
					Sandoz[4]		OTC		Animal Health[5]		Medical Nutrition		Infant & Baby		CIBA Vision		% Change				
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003/2002	2003	2002	2001	2000
Employees																					
HSE Personnel [number of employees working at least 50% for HSE]	**202**	201	**2.0**	1.0	**111**	76.9	**2.3**	2.0	**25.3**	23.5	**4.0**	5.75	**40.0**	41.0	**25.2**	24.1	6	**414**	389	449	396
Finance																					
HSE investments [USD millions]	**76.9**	26.3	**0.90**	0.14	**6.77**	8.00	**0.35**	0.28	**0.58**	0.46	**0.83**	0.60	**0.21**	1.44	**0.57**	0.57	128	**87.7**	38.5	31.5	36.3
HSE expenses [USD millions]	**95.7**	99.9	**4.98**	6.11	**43.8**	29.5	**1.34**	4.03	**2.13**	2.75	**2.01**	1.68	**1.27**	4.99	**6.65**	7.80	3	**164**	159	155	158
Production																					
Total production [1000 t = metric tons]	**25.4**	26.3			**109**	101	**15.8**	20.2	**3.05**	3.25	**120**	111	**327**	323	**14.6**	17.8	2	**643**	630	573	590
Resources																					
Water consumption [million cubic meters]	**17.5**	18.2	**0.71**	0.74	**71.8**	62.8	**0.49**	0.39	**0.82**	0.46	**0.72**	0.88	**4.45**	4.48	**0.64**	0.73	9	**97.2**	88.8	86.7	84.9
Energy consumption [million GJ]	**5.13**	6.00	**0.52**	0.45	**6.27**	5.10	**0.32**	0.31	**0.18**	0.14	**0.26**	0.31	**2.07**	2.17	**0.75**	0.83	1	**15.6**	15.4	14.5	13.8
Health/safety																					
Lost-time accident rate [accidents per 200 000 hours	**0.64**	0.72	**0.70**	0.55	**0.99**	0.92	**0.39**	0.67	**0.72**	0.57	**0.04**	1.19	**0.26**	0.34	**0.42**	0.69	-15	**0.60**	0.71	0.71	0.88

	Consumer Health																Novartis Group[6]				
worked]																					
Lost work day rate [lost days per 200 000 hours worked]	**12.3**	15.4	**4.94**	2.12	**16.5**	7.50	**4.57**	14.7	**2.77**	7.60	**0.39**	7.72	**8.44**	8.95	**11.7**	10.7	-17	**11.0**	13.2	11.1	13.6
Water emissions[1]																					
Effluent discharge [million cubic meters]	**3.69**	4.07	**0.18**	0.19	**16.6**	11.7	**0.13**	0.24	**0.60**	0.11	**0.59**	0.78	**3.18**	3.32	**0.61**	0.68	21	**25.7**	21.2	20.4	19.2
Suspended solids[t]	**204**	247	**5.40**	7.50	**187**	184	**11.4**	10.7	**3.36**	6.81		2.30	**45.3**	19.1	**6.89**	4.09	-4	**487**	508	609	592
Chemical oxygen demand COD [1000 t]	**0.43**	0.42			**3.66**	3.06	**0.06**	0.05	**0.01**	0.01	**0.00**	0.03	**0.09**	0.06	**0.14**	0.09	19	**4.55**	3.83	3.96	3.82
Nitrogen [t]	**86.3**	122			**550**	303	**1.84**	1.22	**0.00**	0.00		0.17	**5.21**	5.80		0.24	49	**644**	432	401	504
Phosphate [t]	**21.1**	54.8			**17.2**	18.4	**4.11**	0.32	**0.00**	0.00			**12.0**	8.41	**2.61**	2.84	-33	**57.0**	84.7	61.3	96.9
Soluble salts [1000 t]	**7.69**	11.1			**14.9**	12.1	**0.50**	0.37	**0.00**	0.00		0.00	**0.01**	0.02	**0.15**	0.30	-2	**23.4**	23.9	20.2	20.8
Sum of heavy metals [t]	**0.06**	0.18			**0.15**	0.00											16	**0.21**	0.18	0.46	0.32
Air emissions																					
Carbon dioxide[t][2]	**170**	212	**4.63**	1.09	**157**	119	**10.8**	10.8	**6.05**	4.97	**7.47**	13.6	**95.6**	89.0	**12.7**	6.93	2	**469**	462	435	440
Sulphur dioxide[t][2]	**33.6**	41.0	**0.21**	0.01	**150**	121	**0.20**	0.08	**32.3**	35.3	**0.11**	0.30	**3.92**	3.70	**0.52**	0.32	9	**222**	203	393	273
Nitrogen oxide[t][2]	**171**	197	**3.17**	0.59	**107**	95.4	**9.32**	7.95	**7.66**	7.11	**5.17**	9.57	**76.1**	71.4	**8.87**	5.81	-2	**392**	398	384	388
Particulates [t]2	**8.66**	10.8	**0.14**	0.01	**6.08**	3.65	**0.52**	0.46	**5.65**	6.12	**0.29**	0.53	**15.8**	15.1	**0.44**	0.16	2	**37.7**	37.0	35.9	62.4
Hydrochloric acid [t]	**0.41**	1.84			**2.18**	3.08	**0.00**	0.00	**0.01**	0.01	**0.00**			0.00			-37	**3.10**	4.93	4.39	4.87
Ammonia [t]	**0.01**	0.01			**0.08**	0.00	**0.01**	0.01	**0.02**	0.02	**0.00**		**0.47**	0.47			15	**0.58**	0.50	0.50	1.12
Volatile organic compounds (VOC) halogenated [t]	**13.1**	21.8			**326**	382	**0.02**	0.02		17.2	**0.00**				**18.8**		-13	**367**	421	759	436
Volatile organic compounds (VOC) non-halogenated [t]	**270**	227			**1200**	1050	**18.7**	17.2	**5.63**	0.90	**0.00**		**0.23**	0.43	**23.3**	18.8	16	**1530**	1320	1110	849
Waste[3] [1000 t]																					
Non-hazardous waste generated	**79.8**	51.6	**1.34**	1.63	**14.1**	12.4	**2.83**	3.68	**0.73**	0.76	**4.30**	6.99	**80.0**	66.8	**5.49**	6.14	25	**194**	155	131	135
Recycled	**64.9**	10.5	**0.66**	0.47	**7.27**	6.16	**1.18**	1.40	**0.16**	0.18	**3.32**	5.66	**70.8**	38.4	**1.75**	1.61	125	**154**	68.5	90.9	70.5
Treated	**4.91**	34.9	**0.57**	1.07	**0.63**	0.67	**1.25**	1.53	**0.08**	0.04	**0.99**	1.30	**0.09**	0.05	**0.07**	0.45	(78)	**8.68**	40.0	11.6	11.5
Disposed of	**10.1**	6.24	**0.10**	0.11	**5.79**	5.53	**0.91**	0.94	**0.70**	0.54		0.03	**10.5**	28.1	**3.47**	4.07	-30	**32.6**	46.4	25.4	54.1
Hazardous waste generated	**55.3**	53.1	**0.41**	0.27	**39.1**	17.9	**0.17**	0.27	**0.61**	0.52	**0.03**	0.09	**0.02**	0.03	**0.21**	0.21	33	**96.0**	72.3	62.3	51.2
Recycled	**12.8**	12.2	**0.01**	0.00	**10.4**	5.35	**0.00**	0.00	**0.00**	0.01	**0.00**	0.01	**0.01**	0.01	**0.01**	0.00	32	**23.3**	17.6	18.2	13.1

					Consumer Health												Novartis Group[6]				
Treated	**39.2**	38.0	**0.41**	0.27	**26.3**	10.3	**0.25**	0.27	**0.60**	0.50	**0.02**	0.08	**0.03**	0.03	**0.20**	0.19	35	**67.0**	49.7	40.3	35.3
thereof incinerated	**38.3**	36.7	**0.40**	0.26	**24.7**	8.43	**0.25**	0.27	**0.59**	0.50	**0.00**	0.00	**0.02**	0.03	**0.16**	0.15	39	**64.4**	46.3	37.3	31.5
Landfill	**3.13**	2.59	**0.01**	0.00	**2.46**	2.06	**0.00**	0.00	**0.00**	0.01	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00	25	**5.82**	4.66	3.51	2.86
Other disposal	**0.00**	0.01	**0.00**	0.00	**0.18**	0.14	**0.00**	0.00	**0.00**	0.00	**0.00**	0.00	**0.00**	0.01	**0.01**	0.00	16	**0.19**	0.16	0.07	0.10
Intermediate storage	**0.22**	0.29	**0.00**	0.00			**0.00**		**0.00**	0.00			**0.00**	0.00			(26)	**0.22**	0.30	0.28	0.22

Table shows absolute values with three significant digits, 0.00 signifies values below 0.005 not applicable.

(1) To waste water treatment plant excluding cooling water.

(2) Calculated based on energy breakdown.

(3) Difference between generated and handled waste due to treatment of waste stored in previous years in 2003.

(4) Including Lek.

(5) Including newly acquired business NAVI (Novartis Animal Vaccines Inc.) based in the US, Canada and the UK.

(6) Including corporate functions, Business Unit Nutrition & Santé (detailed data see Internet: www.novartis.com/hse).

Fines and compliance

In 2003, four fines, three in the US/Canada and one in Latin America, which resulted in fines of less than USD 25 000 in total, were reported as well as seven cases of non-compliance with government HSE regulations. Additionally, two spills occurred which were reported to all relevant authorities and dealt with appropriately.

Global Reporting Initiative (GRI)

Initiated in 1997, the GRI's aim is the development of globally applicable guidelines for reporting on sustainable management. In 2004, we will provide a report in the GRI format on the Internet, which will include our HSE performance data.

Air Emission

Our three-year CO_2 emission-reduction target was a 3% absolute reduction (based on 2000 emission levels) by 2003. To evaluate the reduction fairly, we have compared the sites that existed from 2000 to 2003. From the 2003 figures we subtracted the impact of sites that were newly acquired, and that of sites that have been sold or divested since 2000. The resulting, absolute CO_2-emission reduction is 2.8%.

Without the integration of the 28 Lek sites, we would have achieved a CO_2 emission reduction of 5% compared with 2002. However, taking into account these new sites, emission increased by 2%.

Our SO_2 emission levels have fallen by 20% compared with levels in 2000. Nevertheless, compared with 2002, SO_2 emission increased by 9% due to the start-up of production at an Indian site using heavy oil. We will be switching to another fuel source over the coming year.

At other sites we have invested in new equipment to reduce SO_2 emission. At Wusi Farm in China, the plant management allocated USD 225 000 to the replacement of two charcoal boilers dating from 1994. The boilers, which generated steam for active ingredient production, solid formulation and product packing, originally produced 18% of Novartis Group's SO_2 emission with an energy consumption of only around 0.3% of the Group's total. The installation of the new oil-fired boilers was completed in October 2003, and will lead to a massive reduction in SO_2 emission during 2004.

Halogenated VOC emission is down by 13% due to process improvements at the Sandoz production facilities at Turbhe, India (see also: www.novartis.com), as well as process modifications at the Pharmaceuticals production facility in Grimsby, UK.

Non-halogenated VOC emission has risen by 16%. This is largely a result of the fact that non-halogenated VOC emission has been used to replace halogenated VOC emission, which has a higher environmental impact.

Waste

Hazardous waste has risen by 33% due to changes in the Pharmaceuticals and Sandoz production mix and an increase in production. Lek management has already demonstrated its commitment to waste reduction. The Menges site in Slovenia achieved a significant decrease in hazardous waste through the installation of a new column to distill used methanol. There is sufficient capacity to reduce hazardous waste solvents by 30 m^3 per month.

Non-hazardous waste has risen by 25% overall, partly due to the demolition of a pharmaceutical building in Basel, and partly due to production increases in the Infant & Baby Business Unit.

Our waste reduction strategy is to first prevent, then to reduce, recycle or safely dispose of waste, in that order.

Resource Consumption: Energy and Water

Novartis overall energy usage increased by approximately 1%, mainly due to the integration of Lek, without which we would have seen a decrease of 3%. You can read about several of our energy saving projects on our website at www.novartis.com/hse.

Water consumption increased by 9% due to the integration of Lek and a new Animal Health facility.

Accidents

This year we further reduced the LTAR to 0.6 (LTAR 0.7 in 2002) through increased training and a large number of awareness campaigns, as well as technical improvements.

However, our ambitious target of 0.5 for 2006 will be challenging, since further reductions can only be achieved by implementing measures to improve behavioral safety. We are currently exploring the options open to us in this area.

We sincerely regret the occurrence of five fatalities this year. One of our sales representatives died in a car accident in Poland while traveling to a customer meeting. Another sales representative died in a car accident in Italy on his way home. The three remaining fatalities were not work-related but occurred during working hours on Novartis premises. We would like to extend our sincerest sympathy to the families and friends of the deceased.

Human Resources

Employees by Region and Business at December 31, 2003

	USA	Canada and Latin America	Europe	Africa/Asia/ Australia	Total
Pharmaceuticals (excluding Research)	10 654	4 326	19 312	7 665	41 957
Pharmaceuticals Research	602	0	2 011	70	2 683
Sandoz	1 133	748	8 793	2 244	12 918
OTC	875	297	1 937	811	3 920
Animal Health	504	282	844	563	2 193

	USA	Canada and Latin America	Europe	Africa/Asia/ Australia	Total
Medical Nutrition	789	40	1 833	187	2 849
Infant & Baby	2 234	1 947	605	43	4 829
CIBA Vision	2 492	1 099	1 369	757	5 717
Corporate	551	35	806	83	1 475
Total	**19 834**	**8 774**	**37 510**	**12 423**	**78 541**

Fulfilling Career Aims

The open-plan office on the seventh floor of the IK@N (Informatics and Knowledge Management) building in Cambridge, US is a busy place. According to Dmitri Mikhailov: "People have this positive energy here because we're building a new site from the bottom up. That's what makes it exciting." Dmitri joined the Novartis Institutes for BioMedical Research, Inc. (NIBRI),[(1)] the new US research headquarters, eight months ago. He is currently a member of the advanced computing group and is also responsible for the local high performance computing infrastructure. With a PhD in biophysics, specializing in computational structural biology and bioinformatics, he is ideally suited to this new environment that is leading the industry in its approach to advancing drug discovery by leveraging IT.

(1) NIBRI a corporation that operates in, and only in, Cambridge Mass. The Novartis Institutes for BioMedical Research (NIBR) is a global reseach organization. NIBR consists of NIBRI in Cambridge and the drug discovery activities (but only those activities) of other Novartis Corporations in Basel, Horsham, Vienna, Tokyo and East Hanover.

The work involved in building up the new site is demanding: "One of the things I found since joining NIBRI is that I have to wear multiple hats. My background is scientific but there has also been a lot of coordination and project management, so it was a steep learning curve for me. I work on a number of projects at the same time. This month, one of the things I'm doing is getting desktop PCs in the US linked up to the PC grid." In a ground-breaking project for the pharmaceutical industry, IK@N has already linked desktop PCs together, initially in Basel, in order to harness their surplus power for use in power-intensive computer simulation and modeling for drug discovery.

"One of the reasons I joined Novartis was to work more closely with scientists. I have a personal interest in life sciences and the projects here are very interdisciplinary. My experience is valued and my background allows me to give good feedback to scientists on how we can approach things.

"I see it as a very entrepreneurial place backed by a large organization. On a daily level it feels like I'm working in a small biotech where everyone knows everyone else and what they're working on, but on the other hand there is access to vast amounts of information and resources.

"When I first arrived, I was really impressed with how the company functioned globally from the IT perspective. You can just pick up your laptop computer and take it with you to another office and it looks and works the same way, even if the office is on the other side of the world just amazing. We have great technology here.

"When I look out of the window, I see the whole of Cambridge laid out in front of me. And on a good day I can just make out the Harvard campus. That's something else I appreciate our proximity to renowned universities like Harvard, MIT and Whitehead Institute. We have the chance to go to scientific seminars organized both by Novartis and external organizations, so it's a good opportunity to keep abreast of what's happening in science."

2003 Personnel Costs by Function and Region

	Research USD millions	Devlopment USD millions	Production & supply USD millions	Marketing & Sales USD millions	General & Administration USD millions	Total USD millions

USA	167	374	387	1 180	316	2 424
Canada and Latin America	1	16	75	186	57	335
Europe	230	417	761	954	640	3 002
Africa/Asia/Australia	10	57	42	322	60	491
Total	**408**	**864**	**1 265**	**2 642**	**1 073**	**6 252**

Global Talent Management

We are a growing company and, for our continuing success, depend on a steady flow of top talent. As a performance-driven company, our associates must be highly qualified and motivated. Our efforts in Human Resources are directed towards recognizing and responding to our associates' needs. We have defined a broadly based range of programs instrumental in attracting, retaining and developing associates, to help them fulfill their career goals and potential.

Attracting Top Talent

A key component for any company is the ability to attract talent, the search for which has become increasingly competitive. For top performers, the opportunity to grow and manage their career is an attractive proposition. In 2003, we have undertaken a number of new programs and initiatives that strengthen our ability to attract candidates.

To reach potential associates in a more targeted and cost-effective way, we have broadened our range of recruiting channels to include niche job-boards on the Internet. Employee-referral programs have also been particularly successful. In the US in 2003, approximately 60% of new recruits in the sales organization came via referrals from associates. In order to streamline executive searches, we have also reviewed and reduced the total number of search companies used, by 80%, to a small group that provides consistent quality. And when the global recruitment portal goes online later this year, all recruitment advertisements and information about working at Novartis will become available from a single source.

A coordinated approach to recruitment leads to a single profile, recognized by potential candidates around the world. In January 2003, we launched a global recruitment-brand that presents a consistent and distinctive identity in all our recruitment advertising on a global basis. By taking a unified approach to recruitment branding that embodies the opportunities to grow and develop offered by the company, we aim to position Novartis as an employer of choice.

In response to the growing wish among associates to have more say in managing their own careers, we are providing new associates with a structured set of tools and information that will give them more control over developing their future. The Pathways program uses defined competency profiles and sets clear performance-expectations within a consistent framework for individual development. This program builds a foundation of confidence for associates that they will be supported in developing their skill sets throughout their careers.

Our track record for innovation and our commitment to research has also drawn significant attention from the scientific community over the previous 12 months. Our global research headquarters in Cambridge, US, the Novartis Institutes for BioMedical Research (NIBR),[(2)] which opened in 2002, has already established a reputation for cutting-edge science and reflects well on the entire organization.

(2) See note 1, page 69.

Employees by Function and Region

	Research	Development	Production & Supply	Marketing & Sales	General & Administration	Total

	Research	Development	Production & Supply	Marketing & Sales	General & Administration	Total
USA	1 089	2 374	5 013	9 292	2 066	19 834
Canada and Latin America	9	293	2 937	4 620	915	8 774
Europe	2 352	4 552	12 404	13 161	5 041	37 510
Africa/Asia/Australia	127	778	2 307	7 943	1 268	12 423
Total	**3 577**	**7 997**	**22 661**	**35 016**	**9 290**	**78 541**

Retaining Associates

A large part of our lives is spent at work and many factors beyond job responsibilities determine whether associates will commit themselves to the company. We undertake many individual and ongoing activities and programs to cultivate a sense of belonging and contributing to the company, from which loyalty to, and pride in the company can grow.

Joining a new organization is typically marked by an initial sense of disorientation. The new Global Orientation program, known as GO!, was introduced in 2003 to provide new associates with the necessary support, tools, resources and an interactive platform to help them start contributing productively from the first day. The six-month program has been launched in more than ten countries and in ten languages to date. It is structured to accompany associates through orientation with their job, team, department, the business and the organization as a whole.

2003 Leadership Survey Results[(1)]

To monitor overall satisfaction and the organizational climate, we run regular surveys at regional, country and divisional level. Recent results indicate that our performance management system and leadership development initiatives have been well-received and that our objectives and strategy are clear. Our leadership style is seen as having become more participative, persuasive and motivating, bringing with it a higher perceived competitiveness of associates, product quality and product development. A sense of pride in working at Novartis is a strong and constant element that runs through all the survey results. In addition to surveys we have also introduced other innovative techniques for stimulating feedback and focusing on issues. In more than 80 meetings worldwide, each with between 50 and 100 participants, the Open Space meeting technique has shown how effectively associates can cooperate to raise and define issues as well as propose approaches for their resolution within a very limited period of time.

(1)

Comparison Novartis vs. ISR Global Senior Management Norm.

External evaluation in 2003 also confirms that we are on the right path. Novartis Finland, Italy, Mexico and Spain were among the companies singled out as having created a great workplace environment by the research and management consultancy the Great Place to Work® Institute. The annual survey assesses the quality of the working environment based on factors that include mutual trust between employees and management, team spirit and the pride each employee feels in belonging to the company. Novartis was also highlighted by Science magazine as one of only two European companies that made it into the top ten in their annual survey of the best biotech and pharma employers. Criteria used in the survey included quality of research, financial strength and vision for the future. Novartis was placed in eighth position. In the annual survey carried out by Working Mother magazine, Novartis Pharmaceuticals in the US was included in its "100 Best Companies for Working Mothers". Among the criteria Working Mother focused on were how well companies provide their employees with specific benefits like flexible schedules and leave for new parents, as well as programs for women's advancement.

Female Employees by Business

	Female employees %	Female management %
Pharmaceuticals	44	30
Research	41	25
Sandoz	41	20
OTC	50	30
Animal Health	43	44
Medical Nutrition	48	23
Infant & Baby	41	31
CIBA Vision	64	28
Corporate	58	19
Group overall	**46**	**29**

Female Employees by Region

	Female employees %	Female management %
USA	48	35
Canada and Latin America	42	36
Europe	46	28
Africa/Asia/Australia	43	19
Group overall	**46**	**29**

Local Community Involvement

As part of our commitment to local community and to promote involvement with associates' families, a Family Day was held in Basel and in New Jersey in 2003. In Basel, the Family Day was held in June and more than 18 000 people registered to participate, but fine weather, live

music, guided tours and other events attracted many more on the day. More than 14 000 associates around the world also took the opportunity to "give something back" to their local community by taking part in our annual Community Partnership Day.

Developing Potential

We seek out and cultivate talent in order to ensure our ongoing performance and future success. Through our corporate learning institution we take a structured approach to identifying promising individuals. We have developed a portfolio of learning programs geared to developing strong functional skills and equipping managers for future leadership.

In November 2003, our corporate learning institution was accredited by the European Foundation for Management Development (EFMD). Novartis is the first pharmaceutical company to receive EFMD accreditation and was awarded the quality label because it has demonstrated that it meets international standards in the provision of learning programs for senior managers.

During 2003 more than 550 managers went through the annual Organization and Talent Review (OTR) process. OTR is a key development tool in identifying leadership potential. Following career discussions with associates, management teams assess performance and potential, succession, and development opportunities, such as moving talent into critical job openings or recommending learning programs. In 2004, the process will be expanded to more levels within the organization in order to identify and tap leadership potential at an earlier stage. Diversity will play an increasingly important role, to provide better identification of women candidates for key openings.

Corporate Learning

By the end of this year, our Corporate Learning Institution will have executed more than 160 courses and improved the leadership skills of approximately 4 000 associates worldwide. Learning is carried out in groups as a classroom experience or individually and is backed by e-learning for intensive preparation and follow up. Our three-part leadership program is taught by a world-class faculty from Harvard Business School, INSEAD and Stanford University as well as internal senior management speakers.

Seen as a strategic business initiative, Leading at the Frontline is our largest program and is taught in five languages. It targets newly entering or promoted managers from all Business Units and provides formal leadership training that is directly linked to the participants' business activities. Aimed at managers of managers, the Role of the Leader, launched in 2003, focuses on the flawless execution of our business strategy through outstanding leadership skills. Also launched in 2003 was the Business Leadership Program at the Harvard Business School for our most senior managers. Our leaders must be long term visionary thinkers who are able to develop operational processes and drive performance in line with our longer term strategy. This course helps managers better understand the global challenges facing the healthcare industry and evaluate alternative strategies to improve performance.

Individual development was further supported in 2003 with the introduction of two programs. More than 90 senior managers took part in the Accelerated Development Program which defines a detailed development plan to accelerate the participant's ability to take on increasingly challenging roles. The Senior Leaders Mentoring Program demonstrates the commitment of senior leaders to building future leadership. By dedicating their personal time, senior leaders support top performers in the creation of a personal development plan and the presentation of a new business idea.

Excellence in Marketing

Marketing is critical to our continuing success, particularly in preparing new launches, building up blockbusters and maintaining high market shares. Marketing Excellence Generation 2 (MEX-G2), launched in 2003, builds on the framework of the successful Marketing Excellence program that was designed to develop top-level marketing skills and strong global brands as well as an enthusiastic and competitive spirit. MEX-G2 further focuses on enhancing the ability of managers to generate big ideas and execute them flawlessly at the same time as driving an externally focused and constructively aggressive competitive approach. In its first year MEX-G2 attracted 141 participants.

Senior level non-marketing managers, primarily in research and development have also been targeted in a management program aimed at developing a strong marketing mindset. The Marketing Awareness Program focuses on the creation and delivery of customer value across the brand life-cycle. It builds understanding of customer orientation and marketing in order to foster cross-functional teamwork while building successful products.

Outlook 2004

In order to compete optimally in the market place as an attractive employer, and as a productive, innovative and progressive company, we are focusing on increasing the diversity of our workforce. Diversity includes ethnicity, gender, culture, age and experience, as well as thinking and working style. We are approaching this undertaking on a global basis with the aim of building an inclusive, high-performance environment that values and leverages differences.

We receive many thousands of applications every month and try to respond to each of them. To improve our application processing ability, this year we are introducing a global application tracking system. The system will enable efficient electronic management of individual applications using an online database that is globally accessible.

We will continue to foster innovation throughout the company by living and building a performance driven culture and support it by seeking out and developing individual contributors that show high potential.

Assurance Report on the Novartis Group Corporate Citizenship Reporting

To the Audit and Compliance Committee of Novartis AG:

We have performed review procedures on the management and reporting processes for Corporate Citizenship ("CC") and Health, Safety and Environment ("HSE") for the year ended December 31, 2003. We have also performed review procedures on the HSE key figures "Health, Safety and Environment 2003 Data" on pages 64 and 65 and the CC key figures "Employees by Region and Business" found on page 69 and "Female Employees by Business" and "Female Employees by Region" which are found on page 72 of the Novartis Annual Report (the "Report") for the year ended December 31, 2003. Novartis management is responsible for the Report and for the development and maintenance of the internal reporting processes, data and key figures for CC and HSE. Our responsibility is to report on the internal reporting processes, data, and key figures for CC and HSE based on our review procedures.

The scope of our review procedures was to:

- Observe the existence of internal management processes and controls which ensure the implementation of the CC Policy including the Code of Conduct across Novartis AG and its consolidated subsidiaries (the "Group");
- Test the effectiveness of the internal reporting system used to collect CC and HSE information from Group subsidiaries;
- Observe compliance with the Group internal HSE reporting guidelines at selected sites; and
- Perform, on a sample basis, certain procedures on the 2003 CC and HSE key figures.

Our review procedures included:

- Interviewing personnel responsible for CC management at Group level;
- Visiting the Sandoz and OTC business unit global headquarters, selected regional, country and business unit headquarters in Austria, Egypt, Mexico, Poland, Singapore, Switzerland and the United States, and specific sites in Austria, Egypt, Indonesia, Mexico, Poland, Switzerland and the United Kingdom;
- Interviewing the Organizational Unit Head, CC Executive, Compliance Officer, Human Resources Leader and others responsible for CC reporting and CC key figures, in the different headquarters where our visits took place;

- Reading and performing tests on a sample basis of the relevant documentation including Group policies, management and reporting structures, documentation and systems in place to collect, analyze and aggregate reported CC and HSE key figures; and

- Performing tests on a sample basis of evidence supporting selected HSE parameters with regard to the reported data aggregation from the selected sites to Group level.

There are no generally accepted international standards for the preparation or assurance of corporate sustainability or corporate citizenship reports. We have therefore based our approach on emerging best practice and the underlying principles within the Proposed International Standards on Assurance Engagements (ISAE) 2000, issued March 2003, and standards promulgated by the Swiss profession. We planned and performed our assurance procedures to obtain a reasonable basis for our conclusions. However, we have not performed an audit according to International Standards on Auditing. Accordingly, we do not express such an opinion.

Our statement should be read in conjunction with the section "HSE Performance and Data Management" on page 63 of the Report which defines the scope of the reporting, the inherent limitations of accuracy and completeness for the HSE information, and the fact that CC management process is in its second year of operation.

Based on our review procedures we conclude that:

- The Group level processes and controls intended to implement the CC policy are functioning as designed;

- The Group level reporting system for the collection, analysis and aggregation of the reported HSE key figures is functioning as designed;

- The Group level CC reporting provides an appropriate basis for the disclosure of CC information across the Group; and

- Nothing has come to our attention to cause us to believe that the reported 2003 CC and HSE key figures from the sites and reporting units do not give a fair picture of the CC and HSE performance.

From our work, we have provided the following recommendations to the management, which have been agreed:

- Novartis should consider efforts to tailor the CC reporting system to the scope and objectives of external reporting; and to ensure a more technologically robust tool;

- Novartis should continue to focus on effectively implementing the CC initiative in its daily business operations and thus building on the strong CC awareness programs effectuated to date; and

- Novartis should take advantage of the introduction and implementation of its new HSE reporting tool in 2004 to establish more formalized and effective control procedures for HSE data reporting at site level.

PricewaterhouseCoopers AG

Dr. Thomas Scheiwiller
Basel, January 20, 2004

Thomas Frei

Corporate Governance

Novartis is fully committed to good corporate governance. Novartis' principles and rules on corporate governance are laid down in the Articles of Incorporation, the Regulations of the Board and the Charters of the Board Committees. The Board's Corporate Governance Committee reviews these principles and rules regularly in the light of prevailing best practices and forwards suggestions for improvement to the full Board for approval.

Group Structure and Shareholders

Novartis AG, a holding company organized under Swiss law, owns directly or indirectly all companies worldwide belonging to the Novartis Group.

The Novartis Group is divided operationally into two divisions: Pharmaceuticals and Consumer Health. The Pharmaceuticals Division is organized into five Business Units: Primary Care, Oncology, Transplantation, Mature Products and Ophthalmics. The six Business Units of the Consumer Health Division are: Sandoz, Over-the-Counter self-medication (OTC), Animal Health, Medical Nutrition, Infant & Baby and CIBA Vision. The business operations of the Business Units are conducted through local Novartis Group companies. The most important Novartis subsidiaries and associated companies are listed in Note 31 to the Group's consolidated financial statements.

There are three Novartis subsidiaries whose shares are traded on public stock exchanges. These are Novartis India Limited, Novartis Pharma S.A.E. (an Egyptian company), and Novartis Pharma (Pakistan) Limited. 49% of the shares of Novartis India Limited are registered for trading and less than 5% of the other two companies are registered for trading. In comparison with the Group structure and in relation to the size of the business of each of these three companies, none are considered significant to the Group as a whole.

Each of these companies is majority owned, indirectly, by Novartis AG.

Additionally, Novartis holds significant investments in two large publicly listed companies:

Roche Holding AG, registered in Basel, Switzerland, and listed on the SWX Swiss Exchange (registered shares: Valor No 1203211/ISIN CH0012032113, symbol RO; non-voting equity securities: Valor No 12032048/ISIN CH0012032048, symbol: ROG; ADRs for non-voting equity securities are traded on the OTC market in the US, symbol: RHHBY) The market capitalization of Roche Holding AG on Dec. 31, 2003 was USD 90.6 billion, and

Chiron Corporation, with its registered head office in Emeryville, California, and listed on the NASDAQ (Valor No 918297/ISIN US1700401094, symbol: CHIR). The market capitalization of Chiron Corporation on Dec. 31, 2003 was USD 10.7 billion.

Further information on the size of each shareholding and the method of consolidation are given in Note 10 to the Novartis Group's consolidated financial statement.

Both Roche and Chiron are associated companies but are independently governed, managed and operated.

The other significant Group subsidiaries and associated companies as shown in Note 31 to the Novartis Group's financial statement are not publicly traded. In December 2002, Novartis AG acquired through a wholly-owned subsidiary in a public tender offer 99.07% of Lek d.d., Ljubljana, Slovenia, a company which at that time was publicly listed on the stock exchange in Ljubljana. In 2003 Novartis AG acquired the remaining 0.93% of the outstanding shares and delisted the shares of Lek d.d. from the Ljubljana stock exchange.

The largest registered Novartis shareholders are the Novartis Foundation for Employee Participation, registered in Basel, Switzerland (holding 3.3% of the share capital) and Emasan AG, registered in Basel, Switzerland (holding 3.1%). No other shareholder is registered as owner of more than 2% of the issued share capital and there are no cross-holdings equal to or higher than this amount.

Novartis AG has not concluded any shareholders' agreement or other agreement regarding voting or holding of its shares.

Capital Structure

The share capital of Novartis AG is CHF 1 400 735 000, fully paid-in and divided into 2 801 470 000 registered shares of CHF 0.50 nominal value each. Novartis AG has neither authorized nor conditional capital. All shares have equal voting rights. Novartis has not issued participation certificates or non-voting equity securities (Genussscheine). After the repurchase program announced in 2001 was completed with a corresponding capital reduction approved by the General Meeting in 2002, Novartis announced on July 22, 2002, a further share repurchase program up to a total amount of CHF 4 billion using a second trading line on the SWX Swiss Exchange. At the Annual General Meeting on March 4, 2003 a resolution was passed to reduce the capital from CHF 1 412 075 000 to CHF 1 400 735 000 and to cancel the corresponding number of shares repurchased under the program. The repurchase program continued through 2003 and the Board will propose reducing Novartis AG's share capital by amounts corresponding to the nominal value of repurchased shares in 2003 (24 260 000 shares in 2003) at the forthcoming Annual General Meeting. Further information on the development of the share capital structure of Novartis AG during the last 2 years is presented in tabular form in Note 5 to the financial statements of Novartis AG.

Convertible Bonds and Options

Novartis had no convertible bonds outstanding in 2003. In December 2001, Novartis sold a total of 55 million nine- and ten-year call options (Low Exercise Price Options, "LEPOs") and 55 million nine- and ten-year put options on Novartis shares to a third party. On June 26, 2003 Novartis redeemed these equity instruments.

Information about Novartis share options granted for executive and employee compensation is contained in the section on Compensation below and in Note 26 to the Group's consolidated financial statements.

Shareholders' Rights

Each registered share entitles the holder to one vote at the General Meeting. There are no preferential voting shares. Shareholders also have the right to receive dividends, appoint a proxy, convene a General Meeting, place items on the agenda of a General Meeting and hold such other rights as defined in the Swiss Code of Obligations (SCO).

One or more shareholders whose combined shareholdings represent an aggregate nominal value of at least CHF 1 000 000 may demand that an item be included in the agenda of a General Meeting. Such a demand must be made in writing at the latest 45 days before the meeting and shall specify the items and the proposal of such a shareholder.

Legitimization as Shareholder

Persons enrolled in the Novartis share register may exercise the membership rights of registered shares. Registration requires a declaration that the shareholder has acquired the shares in his own name and for his own account.

According to the Articles of Incorporation, no shareholder shall be registered to vote more than 2% of the issued share capital unless the Board has upon request granted an exemption. So far, such a request has never been denied. The Board may register nominees with the right to vote up to 0.5% of the issued share capital, and in excess of that limit if such nominees disclose particulars of the beneficial owners of these shares.

Groupings formed to circumvent this limitation are treated as one single person or nominee.

The statutory voting restrictions can be cancelled with a two-thirds majority of the shares represented at the General Meeting.

Resolutions and Elections at General Meetings

Shareholders registered at least 20 days prior to the General Meeting may vote their shares at the meeting.

Resolutions of the shareholders at General Meetings are approved with a simple majority of the shares represented at the meeting, except in the following matters which by law (SCO, Art. 704) and our Articles of Incorporation require the approval of two-thirds of all represented shares:

- Alteration of the purpose of Novartis AG
- Creation of shares with increased voting powers
- Implementation or removal of restrictions regarding the transferability of shares
- Authorized or conditional increase of the share capital
- Increase of the share capital from equity or a contribution in kind, for the purpose of an acquisition of property and the grant of special rights
- Restriction or suspension of rights of option to subscribe
- Change in location of the registered office of Novartis AG
- Dissolution of Novartis AG without liquidation

The Company has not adopted any decisions that differ from the rules applicable to it under the Swiss Stock Exchange Act (no opting-up or opting-out).

The Board of Directors

Members of the Board of Directors[1]

	Age	Director since	Term Expires
Dr. h.c. Daniel Vasella, MD	50	1996	2004
Prof. Helmut Sihler, JD, PhD	73	1996	2004
Hans-Joerg Rudloff	63	1996	2004
Dr. h.c. Birgit Breuel	66	1996	2005
Prof. Peter Burckhardt, MD	65	1996	2005
Prof. Srikant Datar, PhD	50	2003	2006
Walter G. Frehner	70	1996	2004
William W. George	61	1999	2006
Alexandre F. Jetzer	62	1996	2005
Pierre Landolt	56	1996	2005
Prof. Ulrich Lehner, PhD	57	2002	2005
Heini Lippuner	70	1996	2004

	Age	Director since	Term Expires
Dr.-Ing. Wendelin Wiedeking	51	2003	2006
Prof. Rolf M. Zinkernagel, MD	59	1999	2006

(1) See also the biographical information on pages 105 109

The average tenure of our Directors is six years and their average age is 61 years. Dr. Daniel Vasella is the only Executive Director. Alexandre F. Jetzer was a member of the Executive Committee until 1999 and supports Novartis' Government Relations under a consultancy agreement. On the basis of the independence criteria listed in the appendix to the Regulations of the Board and Committee Charters effective as of April 15, 2003 the Board has decided that with the exception of Dr. Daniel Vasella and Alexandre F. Jetzer, all Directors are independent and have no material dealings with Novartis AG or other companies of the Novartis Group outside their role as a Director(2). No Director sits on the board of directors of other listed companies with which any Novartis Group company conducts a material amount of business.

(2) In his capacity as a Director, Prof. Rolf M. Zinkernagel, MD, represents the Board of Directors' interests on the Scientific Advisory Board of the Novartis Institute for Tropical Diseases (NITD). He is also a member of the Board of Directors of the Genomics Institute of the Novartis Research Foundation (GNF).

For the last seven years, Novartis has engaged the Harvard Business School (HBS), the employer of Prof. Srikant Datar, PhD, to train Novartis executives in financial and business matters. The compensation paid by Novartis for these programs is not material in comparison with the total revenues of Harvard Business School and, therefore, does not constitute a "material dealing" as defined under US Securities law or the Listing Standards of the New York Stock Exchange (NYSE). Prof. S. Datar was the person at HBS responsible for managing these Novartis programs. Prior to his nomination as Director, Prof. S. Datar relinquished his management responsibilities for these programs and since his nomination as Director has not been separately compensated. Therefore, under the definitions of Director independence in place at the time of his election as a Director, Prof. S. Datar was deemed by the Board to be an Independent Director. New NYSE rules published in 2003 and which will become effective in November 2004 provide for a three-year look-back period on compensation other than Board fees paid by an issuer to its directors. Under this new rule and its extended look-back period, as of November 2004 Prof. S. Datar, due to his professional engagement for Novartis AG prior to his nomination as Director, would not be considered "independent." As a consequence, and to avoid any doubt, in December 2003 Prof. S. Datar stepped down from the Audit and Compliance Committee which requires that all members are independent.

The specific term of office for a Director is determined by the General Meeting on the occasion of his or her election. Each year approximately one-third of all Directors are elected or re-elected. In principle, a Director is to retire after 12 years of service or the reaching of 70 years of age. Nonetheless, the shareholders may re-elect such Directors for additional terms of office. Dr. Daniel Vasella has been elected by the Board as its Chairman and also to serve as Chief Executive Officer. It is the view of the Board that this dual role ensures effective leadership and excellent communication between the shareholders, the Board and Management. The Board has appointed Prof. Helmut Sihler, JD, PhD, as Lead Director, whose responsibility it is to ensure an orderly process in evaluating the performance of the Chairman and CEO and to chair the Board's private sessions (i.e. the meetings of the non-executive Directors). In case of a crisis, he would assume leadership of the Independent Directors.

The Board appointed Prof. Helmut Sihler and Hans-Joerg Rudloff as its Vice Chairmen.

Role and Functioning of the Board

The Board holds the ultimate decision-making authority of Novartis AG for all matters except those reserved by law (SCO, Art. 698) to the shareholders.

Decisions are taken by the Board as a whole, with the support of its four Committees described below (Chairman's Committee, Compensation Committee, Audit and Compliance Committee and Corporate Governance Committee). The primary functions of the Board are:

Strategic direction of Novartis

Organization of Novartis

Accounting matters, financial control and financial planning

Appointing and dismissing members of the Executive Committee and other key executives

Setting compensation: approving policies of certain fundamental importance to the functioning of the Group such as the Novartis Code of Ethical Conduct of CEO and Senior Financial Officers

Overall supervision of the business operations

Setting out matters to be presented at the General Meeting, including the Novartis AG financial statements and the Group's consolidated financial statements

The Board has not concluded any contracts with third parties for the management of the Company but has delegated to the Executive Committee the coordination of day-to-day business operations of Group companies. The Executive Committee is headed by the Chief Executive Officer. The internal organizational structure and the definition of the areas of responsibility of the Board and the Executive Committee are set forth in the Board Regulations. The agenda for Board meetings is set by the Chairman. A Director may request that an item be included on the agenda. Board Members are provided with adequate materials to prepare for the items on the agenda in advance of Board meetings.

The Board recognizes the importance of being fully informed on material matters involving the Group and ensures that it has sufficient information to make appropriate decisions through several means:

By invitation, members of senior management attend Board meetings to report on areas of the business within their responsibility

Board Committees, in particular the Audit and Compliance Committee, regularly meet with management and outside consultants, including the Group's external auditors, to review the business, better understand all laws and policies impacting the Group and support the management in meeting the requirements and expectations of the stakeholders

Informal teleconferences between Directors and the Chairman and CEO or the Lead Director, as well as regular distribution of important information to the Directors

During 2003, the Board met seven times. Detailed information on each Director's attendance at full Board and Board Committee meetings is provided in the table below.

Once yearly, the Board reviews the performance of the Chairman and CEO and approves the objectives for the following year. The Board of Directors also performs a self-evaluation once a year.

The non-executive, Independent Directors met twice during 2003 in separate sessions chaired by the Lead Director.

Board Committees

Detailed information on attendance at full Board and Board Committee meetings is as follows:

	Full Board	Chairman's Committee	Compensation Committee	Audit and Compliance Committee	Corporate Governance Committee
Number of meetings in 2003	7	8	3	8	2
Dr. h.c. Daniel Vasella, MD	7(1)	8(1)			
Prof. Helmut Sihler, JD, PhD	7	8	3(1)	8(1)	2
Hans-Joerg Rudloff	7	8	3		2
Dr. h.c. Birgit Breuel	7			7	
Prof. Peter Burckhardt, MD	7				
Prof. Srikant Datar, PhD(2)	5			5	
Walter G. Frehner	7			7	
William W. George	7	8	3		2(1)
Alexandre F. Jetzer	7				
Pierre Landolt	7				
Prof. Ulrich Lehner, PhD	7			7	
Heini Lippuner	7	8			
Dr.-Ing. Wendelin Wiedeking(2)	4				
Prof. Rolf M. Zinkernagel, MD	7				2

(1) Chair

(2) Since March 4, 2003

Role and Functioning of the Board Committees

Each Board Committee has a written Charter outlining its duties and responsibilities and a chair elected by the Board. The Board Committees meet regularly and consider meeting agendas determined by the Chair. Board Committee members are provided with adequate materials to prepare for the items on the agenda in advance of meetings.

The Chairman's Committee

The Chairman's Committee consists of the Chairman and Chief Executive Officer, the two Vice Chairmen, one of whom is the Lead Director, and such other members as are elected by the Board from time to time. In 2003, the Committee met eight times.

The Chairman's Committee reviews selected matters falling within the authority of the Board before the latter takes decisions on such matters and, in urgent cases, can take preliminary and necessary actions on behalf of the Board. The Chairman's Committee also interfaces with the Executive Committee, specifically deciding on financial investments and other matters delegated to the Committee by the Board of Directors.

The Compensation Committee

The Compensation Committee is composed of three independent Directors. In 2003, it convened three times. The Compensation Committee reviews the compensation policies and programs of the Group, including share option programs and other incentive-based compensation before the full Board makes final decisions. It is responsible for reviewing and approving the compensation paid to members of the Executive Committee and other selected key executives, and for reviewing the performance of the Chairman and Chief Executive Officer. The Compensation Committee seeks outside expert advice from time to time to support its decisions and recommendations.

The Audit and Compliance Committee

The Audit and Compliance Committee is composed of four members and in 2003 met eight times. The Board has determined that all the members of the Committee are independent, as defined by the rules of the New York Stock Exchange as well as by the independence criteria of Novartis (see appendix to the Regulations of the Board and Committee Charters), and that its chair, Prof. Helmut Sihler, JD, PhD is adequately qualified in financial management matters. The Audit and Compliance Committee has determined that Prof. Ulrich Lehner, PhD, is independent and possesses the required accounting and financial management expertise required under the rules of the NYSE. Therefore the Board of Directors has appointed him as the Audit and Compliance Committee's Financial Expert. Prof. S. Datar also was designated as a Financial Expert until he voluntarily stepped down from the Committee in December 2003. The Board has also reassured itself that other members of the Committee have sufficient experience and ability in finance and matters of compliance to enable them to adequately discharge their responsibilities.

The Committee's main duties are:

Evaluate and select the external auditors to be nominated for election at the Annual General Meeting

Review the terms of engagement of the external auditors and the scope of the external audit

Discuss with the external auditors the results of their audits, any unusual items or disclosures contained in the audits, and the matters required by US Statement on Auditing Services No. 61 (including, for example, the initial selection of, and changes in, significant accounting policies and the process utilized by management to formulate significant accounting estimates)

Review the scope of internal auditing and the adequacy of the organizational structure and qualifications of the internal auditing staff

Review with external auditors, internal auditors and the financial and accounting management of Novartis whether the accounting policies and financial controls are appropriate, adequate and effective

Meet with management and the external auditors to review the financial statements and annual report

Review risk control processes and procedures

Review all relationships between Group companies and external auditors

Review the processes and procedures for ensuring compliance with laws and internal regulations (such as the Novartis Code of Conduct)

Oversee Novartis' commitments as a subscriber to the UN's Global Compact initiative

The Corporate Governance Committee

The Corporate Governance Committee is composed of four independent Directors and met twice in 2003. The Corporate Governance Committee develops corporate governance principles and recommends these to the Board for approval. Its duties include the regular review of the Articles of Incorporation with a view to reinforcing shareholder rights and of the composition and size of the Board and its committees. The Corporate Governance Committee conducts an annual evaluation of the Board as a whole and gives guidance to the Directors on how to avoid potential conflicts of interests.

Further Corporate Governance Matters

Applicable Corporate Governance Standards

The standards on corporate governance implemented and applied at Novartis fully comply with the Directive on Information Relating to Corporate Governance published on July 1, 2002 by the SWX Swiss Exchange. Novartis is also in compliance with the corporate governance standards of the NYSE and applicable US law with two exceptions where Novartis continues to apply Swiss (home country) practices: (i) Swiss Law requires that the external auditors of Novartis be appointed by the General Assembly and not by the Audit and Compliance Committee and (ii) equity compensation plans are not voted at the General Meeting but are decided on by the Executive Committee or the respective committee of the local Novartis Group company. All such plans are established within the policies and programs approved by the Compensation Committee.

Documentation

The following documents describe the Corporate Governance Standards applied by Novartis and are available on the Novartis website: http://www.novartis.com/investors/en/governance.shtml or can be ordered in print from the Corporate Secretary Ingrid Duplain, JD.

Articles of Association

Regulations of the Board and Committee Charters, including the independence criteria for Board and Audit and Compliance Committee members

Compensation

Non-Executive Directors' Compensation

The Compensation Committee advises the Board of Directors on the compensation of non-executive Directors. Non-executive Directors receive an annual retainer in an amount that varies with the Board and Committee responsibilities of the Director. Directors are eligible to participate in certain of the equity programs which we offer to senior management and selected employees. Directors receive no additional fees for attending meetings. Directors can choose to receive the annual retainer in cash, shares, or a combination thereof. As of January 1, 2003, we no longer offer share options to Directors, or grant shares to Directors in acknowledgement of business performance. Directors are reimbursed for travel and other necessary business expenses incurred in the performance of their services.

2003 Directors' Compensation

	Annual Cash Compensation (USD)[1]	**Shares (number)**

Dr. h.c. Daniel Vasella, MD Chairman's Committee (Chair)	(please refer to the table on page 97)	
Prof. Helmut Sihler, JD, PhD Vice Chairman, Lead Director Chairman's Committee (Member) Compensation Committee (Chair) Audit and Compliance Committee (Chair) Corporate Governance Committee (Member)	727 566	
Hans-Joerg Rudloff Vice Chairman Chairman's Committee (Member) Compensation Committee (Member) Corporate Governance Committee (Member)	18 795	11 874
Dr. h.c. Birgit Breuel Audit and Compliance Committee (Member)	336 402	
Prof. Peter Burckhardt, MD	99 145	4 391
Prof. Srikant Datar, PhD[2] Audit and Compliance Committee (Member)	199 634	3 302
Walter G. Frehner Audit and Compliance Committee (Member)	336 402	
William W. George Chairman's Committee (Member) Compensation Committee (Member) Corporate Governance Committee (Chair)	246 060	4 069
Alexandre F. Jetzer[3]	8 673	6 756
Pierre Landolt	79 707	4 965
Prof. Ulrich Lehner, PhD Audit and Compliance Committee (Member)	338 073	
Heini Lippuner Chairman's Committee (Member)	375 519	
Dr.-Ing. Wendelin Wiedeking[4]	167 498	2 534
Prof. Rolf M. Zinkernagel, MD[5] Corporate Governance Committee (Member)	210 647	7 738
Total	3 144 121	45 629

(1) Amounts have been converted from CHF to USD using the 2003 average exchange rate of CHF 1.35/USD.

(2)

Prof. Srikant Datar, PhD, Professor for Accounting and Senior Associate Dean of the Harvard Business School was elected to the Board at the Annual General Meeting on March 4, 2003. Prof. Srikant Datar, PhD, stepped down from the Audit and Compliance Committee as of December 31, 2003.

(3) In addition he was paid USD 129 456 for other consulting services.

(4) Dr.-Ing. Wendelin Wiedeking, CEO of Porsche AG was elected to the Board at the Annual General Meeting on March 4, 2003.

(5) Includes USD 185 705 for acting as the Board's delegate in the scientific advisory boards of the Genomics Institute of the Novartis Research Foundation (GNF) and the Novartis Institute for Tropical Diseases (NITD).

Ownership of Novartis Shares and Share Options by the Non-Executive Directors

In December 2003 the Board of Directors adopted a share ownership guideline, under which non-executive Directors are required to own at least 5 000 Novartis shares within three years after joining the Board. The total number of Novartis shares owned as of December 31, 2003 by the non-executive Directors and persons closely linked to them was 297 040. "Persons closely linked to them" are (i) their spouse, (ii) their children below age 18, (iii) any legal entities that they own or otherwise control, or (iv) any legal or natural person who is acting as their fiduciary. No non-executive Director owned 1% or more of our outstanding shares. As of December 31, 2003, the individual ownership of Novartis shares by the non-executive Directors (including persons closely linked to them) was as follows:

Beneficial Owner	Number of Shares Owned Directly or Indirectly
Dr. h.c. Daniel Vasella, MD	(please refer to the table on page 98)
Prof. Dr. Helmut Sihler	34 304
Hans-Joerg Rudloff	97 954
Dr. h.c. Birgit Breuel	4 160
Prof. Dr. Peter Burckhardt	10 972
Prof. Srikant Datar, PhD	3 302
Walter G. Frehner	13 420
William W. George	35 000
Alexandre F. Jetzer	54 876
Pierre Landolt	200
Prof. Dr. Ulrich Lehner	120
Heini Lippuner	26 060
Dr.-Ing. Wendelin Wiedeking	3 534
Prof. Dr. Rolf M. Zinkernagel	13 138
Total	**297 040**

As of the same date, the non-executive Directors held a total of 365 421 Novartis share options. The number of share options granted and exercise prices have been adjusted to reflect the share split of 1:40 in 2001. Broken down by grant year since 1999 the number of options held are:

Grant Year	Options Held (number)	Conversion Rate	Exercise Price (CHF)	Term Life (years)
2002	125 541	1:1	62.0	9
2001	90 480	1:1	70.0	9
	10 000	1:1	62.6	10
2000	92 200	1:1	51.3	9
1999	17 200	1:1	68.4	9

Compensation for Former Directors and Executives

In 2003, a total amount of USD 140 824 was paid to four former members of the Board and USD 2 350 630 to three former Executives.

Report of the Compensation Committee

Executive Compensation Policy

Novartis' compensation programs are designed to attract, retain and motivate the high caliber executives, managers and associates who are critical to the success of the corporation. Globalization of labor markets for specialists and executives has led to a rapid convergence between US and European principles of compensation and a stronger focus on long-term, equity based forms of programs. Overall, the intention of the programs is to provide compensation opportunities that:

Are comparable to those provided by a selected group of industry-specific competitors

Support a performance oriented culture that allows high performers to achieve superior rewards; and

Align executives, management and associates to create sustainable shareholder value

Total individual compensation at target performance level is aimed at the median of comparable companies of our industries. Annual cash and equity incentive awards are based on both overall Group or affiliate company and individual performance. Long-term incentive awards include share options and other forms of equity participation. Executive compensation programs strongly encourage significant levels of share ownership and put a high portion of total compensation at risk, subject to individual and company performance and the appreciation of Novartis shareholder value. In addition, to further strengthen the Company's ownership philosophy, the Board of Directors established in 2003 share ownership guidelines under which the Executives are required to own a multiple of their base salary in Novartis shares.

Compensation Programs Descriptions

The total compensation package for each executive consists of the three basic components discussed in more detail below. Target salary and incentive levels are set at the median of the peer group, based on available public data and the analysis of external compensation advisors. Actual compensation levels of individuals may in some instances surpass the median of the market, reflecting superior results. The Compensation Committee believes that this position is consistent with the performance of the Group and its evaluation of the external market.

Salaries: The 2003 salaries of the Executive Committee members are shown in the "Salary" column of the 2003 Summary Compensation Table on p. 112.

Annual Incentive Awards: Under the terms of the Novartis Annual Incentive Plan, awards are made each year based on the achievement of predetermined Group and individual performance objectives. Below a threshold level of performance, no awards may be granted under the plan.

Long-Term Incentive Compensation: Long-term incentive compensation, in the form of share options, performance-contingent shares, and restricted shares, comprises a major portion of the total compensation package for executives. In any given year, an executive may be offered share options, performance-contingent shares, and/or restricted shares. Long-term incentives are targeted at the median of the competitive market, with above-average and superior performance resulting in long-term compensation above the targeted amounts. Below a threshold level of performance, no awards may be granted under the plan. Share options are also granted to selected employees.

Share Options

(a)

Novartis Share Option Plan

Under the Novartis Share Option Plan, Directors (through 2002), executives and other selected employees of Group companies (collectively, the "Participants") may be granted options to purchase Novartis shares. These options are granted both in recognition of past performance and as an incentive for future contributions by the Participants. They allow the Participants to benefit as the price of the shares increases over time, and so provide a long-term incentive for improvements in our profitability and success. If a Participant voluntarily leaves Novartis, options not yet vested generally forfeit. The options under the Novartis Share Option Plan have an exercise period of seven years, which begins after the lapse of a two-year vesting period, and an exchange ratio of 1:1.

(b)

Novartis US ADS Incentive Plan for US-based employees

Introduced in 2001, the Novartis US American Depositary Shares (ADS) Incentive Plan grants options to US-based Directors (through 2002), officers and other selected employees thus replacing a Share Appreciation Rights Plan. Its terms and conditions are substantially equivalent to the Novartis Share Option Plan.

In order to further align the Novartis Share Option Plan and the US ADS Incentive Plan, as of 2004, (a) the vesting period for the Novartis Share Option Plan has been changed to a three-year vesting period, and (b) Novartis will introduce tradable stock options in ADS in the US.

Share Plans: We offer to certain executives a Long-Term Performance Plan, a Leveraged Share Savings Plan and a Restricted Share Plan. These plans are designed to foster long-term commitment of eligible employees by aligning their incentives with our performance.

(a)

Long-Term Performance Plan

Under the Long-Term Performance Plan, participants are awarded the right to earn Novartis shares. Actual payouts, if any, are determined with the help of a formula which measures, among other things, our performance using economic value added relative to predetermined strategic plan targets over a three-year period. Additional functional objectives may be considered in the evaluation of performance. If performance is below the threshold level of the predetermined targets, then no shares will be earned. To the extent the Group's performance exceeds the threshold performance level, participants are eligible to receive an increasing amount of Novartis shares, up to the maximum cap. Payout of shares is conditioned on the participant remaining in the employ of a Novartis affiliate at the time of payout.

(b)

Leveraged Share Savings Plan

There are two separate Leveraged Share Savings Plans.

Participants can choose to receive part or all of their Annual Incentive Award in shares. Shares awarded under this plan are blocked for five years after the grant date. After expiration of the blocking period, the respective shares are matched with an equal number of shares.

In 2001 the Board approved a new employee share ownership plan under which Swiss-based employees receive part of their income up to a specified amount in Novartis shares. After the expiration of a blocking period of three years the award is matched with half a share for each share held.

Generally, no matching shares will be granted if an employee voluntarily leaves Novartis prior to expiration of the blocking period.

(c)

Restricted Share Plan

Under the Restricted Share Plan, employees may be granted restricted share awards either as a result of a general grant or as a result of an award based on having met certain performance criteria. Shares granted under this Plan generally have a five-year vesting period. If a participant voluntarily leaves Novartis, shares not vested generally forfeit.

Employee Benefits: Employee benefits offered to executives are designed to be competitive and to provide a safety-net against the financial catastrophes that can result from disability or death, and to provide a reasonable level of retirement income based on years of service with Novartis.

Evaluation of the Executive Committee Members' Performance

The Compensation Committee and the Board of Directors meet without the Chairman and CEO to evaluate his performance, and with the Chairman and CEO to evaluate the performance of other Executive Committee members. The bonuses and long-term incentives for 2002 and the base salaries for 2003 were discussed and approved at the meetings of the Compensation Committee held in January 2003. The decisions on compensation of Executive Committee members were mainly based on individual performance evaluations and also take into account current market conditions. In 2003, the Compensation Committee considered management's achievement of short and long-term goals, including revenue growth, economic value creation (operating and net income, earnings per share and economic value added) and ongoing efforts to optimize organizational effectiveness and productivity. The Compensation Committee also takes into consideration management's responses to the changes in the global marketplace and the strategic position of the Group. The performance measures were weighted subjectively by each member of the Compensation Committee.

Summary

The Compensation Committee believes that the compensation practices and compensation philosophy of Novartis align executive and shareholder interests. We believe that the actions taken over the past year have allowed the Company to attract, retain and motivate the key talent Novartis needs to continue to compete and provide a strong return to shareholders.

The Compensation Committee of the Board of Directors

Prof. Helmut Sihler, JD, PhD (Chairman)
Hans-Joerg Rudloff
William W. George

Executive Compensation

In 2003, there were 20 Executive Committee members, Permanent Attendees to the Executive Committee and Business Unit Heads ("Executives"), including those who retired or terminated their employment in 2003. In total, the Executives received USD 10 781 000 in salaries and USD 4 025 000 in cash bonuses. The number of share options granted was 3 252 937 and the number of shares granted was 487 853. An additional USD 1 089 000 was set aside for their pension, retirement and similar benefits. Compensation represents all payments made in 2003; however, cash bonuses and long-term compensation are based on 2002 business performance. The following summary compensation table provides details on the 2003 compensation of the Executive Committee members.

2003 Summary Compensation Table

	Annual Compensation		Long-Term Compensation				
Name and Principal Position	**Salary (USD)**	**Cash Bonus (USD)**	**Restricted Share Awards (number)[1]**	**Unrestricted Share Awards (number)[2]**	**Share Options (number)[3]**	**All Other Compensation (USD)[4]**	**Total Compensation (USD)[5]**
Dr. h.c. Daniel Vasella, MD[6] Chairman & CEO	2 228 463		122 825	122 826	1 399 254	122 298	14 431 040
Urs Baerlocher, JD[6] Head of Legal & General Affairs	545 973		30 389	10 134	153 918	122 083	2 053 948

	Annual Compensation		Long-Term Compensation				
Raymund Breu, PhD[6] Chief Financial Officer	699 490		23 030	13 818	419 777	117 804	3 104 301
Paul Choffat, JD[6] Head of Consumer Health	557 116	250 702	6 909	11 516	125 933	120 515	1 995 627
Thomas Ebeling[6] Head of Pharmaceuticals	742 821	854 244	10 000	15 354	429 105	521 015	4 538 453
Prof. Mark C. Fishman Head of Pharmaceuticals Research	850 000		5 745	6 023	133 648	34 781	2 374 579
Norman C. Walker[6],[7] Head of Human Resources	297 128	311 985		9 213	70 523	101 252	1 303 421

(1) The Restricted Share Awards include shares granted under the Leveraged Share Savings Plan.

(2) The Unrestricted Share Awards include shares granted under the Long-Term Performance Plan.

(3) The share options granted provide the right to purchase one share per option. Share options granted under the Novartis Share Option Plan have a closing price at grant of CHF 48.85 per share and an exercise price of CHF 49.00 per share. The options have a cliff-vesting period of two years after the date of grant and will expire on February 3, 2012. The tradable share options have a tax value of CHF 4.94 per option, calculated based on the Black-Scholes Method.
Share options granted under the US ADS Incentive Plan have a closing price at grant and an exercise price of USD 36.31 per share. The options have a cliff-vesting period of three yers after the date of grant and will expire on February 1, 2013. The non-tradable share options have a value of USD 7.95 per option, calculated based on the Black-Scholes Method.

(4) Amounts include, among others, payments made by Novartis to the Management Pension Fund, a defined contribution plan.

(5) The total compensation amounts have been calculated using the taxable value or Black Scholes Value of the shares and share options granted. All amounts have been converted into USD using 2003 average rates (CHF 1.35/USD).

(6) Compensation is paid in CHF.

(7) Norman C. Walker left the company on August 31, 2003. Compensation shown includes payments made until then.

Distribution of Share Options Granted to Employees

Under the Novartis Share Option Plan and the Novartis US ADS Incentive Plan described above, a total number of 29.8 million share options with an exchange ratio of 1:1 were granted to 8 028 Participants in 2003. 11% of the overall number of share options were granted to the Executives.

As of December 31, 2003, a total number of 61.6 million share options were outstanding, providing the right to an equal number of shares, which corresponds to 2.2% of the nominal outstanding share capital of Novartis AG.

Ownership of Novartis Shares and Share Options by the Executives

The total number of Novartis shares owned as of December 31, 2003 by the Executives and persons closely linked to them was 940 117. "Persons closely linked to them" are (i) their spouse, (ii) their children below the age of 18, (iii) any legal entities that they own or otherwise control, and (iv) any legal or natural person who is acting as their fiduciary. No Executive owned 1% or more of our outstanding shares.

As of December 31, 2003, the individual ownership of Novartis shares of the Executive Committee members (including persons closely linked to them) was as follows:

Beneficial Owner	Number of shares owned Directly or Indirectly
Dr. h.c. Daniel Vasella, MD	401 469
Urs Baerlocher, JD	129 536
Raymund Breu, PhD	189 496
Paul Choffat, JD	7 659
Thomas Ebeling	54 522
Prof. Mark C. Fishman	5 745
Total	**788 427**

As of December 31, 2003, the 20 Executives held a total of 6 361 294 Novartis share options. The number of share options and exercise price were adjusted to reflect the share split of 1:40 in 2001. Broken down by grant year since 1999, the number of share options held are:

Grant Year	Options Held (number)[1]	Conversion Rate	Exercise Price (CHF)	Term Life (years)
2003	3 182 414	1:1	49.0	9
2002	2 124 250	1:1	62.0	9
2001	490 070	1:1	70.0	9
2000	430 200	1:1	51.3	9
1999	101 000	1:1	68.4	9

(1) The number of share options held includes share options granted under the Novartis Share Option Plan and the US ADS Incentive Plan.

Swiss Employee Benefit Plans

	Years of Service					
Base Salary (CHF)	**15**	**20**	**25**	**30**	**35**	**40**
100 000	17 076	22 764	28 464	34 152	39 840	45 528
140 000	26 076	34 764	43 464	52 152	60 840	69 528
180 000	35 076	46 764	58 464	70 152	81 840	93 528
220 000	44 076	58 764	73 464	88 152	102 840	117 528
over 220 000	44 076	58 764	73 464	88 152	102 840	117 528

(a) Swiss Pension Fund

The Swiss Pension Fund is a defined benefit fund that provides retirement benefits and risk insurance (covering death or disability). The Swiss Pension Fund is funded by contributions from Group companies and the insured employees. The Swiss Pension Fund insures remuneration up to a maximum of CHF 220 000 per year. The maximum retirement pension is 60% of the insured remuneration after 40 years of contribution. The table above shows the annual pension benefit by Base Salary and Years of Service. In 2003 Novartis contributed CHF 11 700 for each of the Swiss-based Executive Committee members.

(b) Swiss Management Pension Fund

The Swiss Management Pension Fund is a defined contribution plan and provides retirement benefits and risk insurance (covering death or disability) for components of remuneration not covered by the Swiss Pension Fund. Employees exceeding the maximum insurable remuneration of the Swiss Pension Fund are eligible for the Swiss Management Pension Fund. The benefits under the Swiss Management Pension Fund are granted in addition to those of the Swiss Pension Fund. The Swiss Management Pension Fund is funded through contributions by Novartis and the employee.

US Based Employee Pension Plan

The Pension Plan for US based employees of Novartis Corporation (Pension Plan) is a funded, tax-qualified, noncontributory defined-benefit pension plan that covers certain employees of Novartis Corporation and its United States affiliates, including Prof. Mark C. Fishman. The Pension Plan provides for different pension formulas depending on which Novartis company is the employer of a particular employee. The pension formula in which Prof. Mark C. Fishman participates under the Pension Plan is a pension equity (PEP) formula. Benefits under the PEP formula are based upon an employee's highest average earnings for a five calendar-year period during the last ten calendar years of service with Novartis and the employee's accumulated PEP credits (expressed as a percentage of final average earnings, and ranging from 2% to 13% for each year of service based on the employee's attained age in a particular year), and are payable after retirement in the form of an annuity or a lump sum. The amount of annual earnings covered by the Pension Plan is generally equal to the employee's base salary and annual bonus. The amount of annual earnings that may be considered in calculating benefits under the Pension Plan is limited by law. For 2003, the annual limitation was USD 200 000.

Novartis Corporation and its United States affiliates also maintain various unfunded supplemental pension plans that each provide its employees with an amount substantially equal to the difference between the amount that would have been payable under the Pension Plan in the absence of legislation limiting pension benefits and the annual earnings that may be considered in calculating pension benefits under tax-qualified pension plans, and the amount actually payable under the Pension Plan.

Personal Loans, Change of Control and Severance Agreements

Under the provisions of the US Sarbanes-Oxley Act, enacted in July 2002, no new loans may be given to Executives. Loans granted prior to the act were repaid during 2003. As of December 31, 2003 no loans were outstanding. Under a change of control provision, four executives have provisions whereby their normal contractual severance of 36 months is extended by 24 months during the 12 months following a change of control. One executive has a provision whereby the normal contractual severance of 12 months is extended by 12 months during the 12 months following a change of control. Between January 1, 2003 and December 31, 2003, three Executives left the company; under the terms of the agreements with these Executives, USD 1 795 000 were paid as severance.

Performance Graph

This graph compares our total shareholder returns, the Morgan Stanley World Pharmaceuticals Index (MSWPI), and the Swiss Market Index (SMI). The graph assumes CHF 100 invested at Novartis per share closing price on December 31, 1995, in Novartis shares and each of the indices.

	Dec 95	Dec 96	Dec 97	Dec 98	Dec 99	Dec 00	Dec 01	Dec 02	Dec 02
Novartis	100	147	244	281	247	317	269	230	260
MSWPI	100	142	221	292	302	380	334	229	237
SMI	100	122	197	228	245	268	215	158	191

Report of the Audit and Compliance Committee

The Audit and Compliance Committee has reviewed the Group's financial reporting process on behalf of the Board of Directors. Management is responsible for creating the financial statements and managing the reporting process, including the system of internal controls by which those statements are created.

For each quarterly and annual financial release, management's Disclosure Committee reviews the release for accuracy and completeness of the release's disclosures. The decisions taken by the Disclosure Committee are reviewed with the Audit and Compliance Committee before publication of the financial release.

The internal audit function, which reports to the Chairman and works closely with the Audit and Compliance Committee, reviews the effectiveness, efficiency and appropriateness of the internal control systems, particularly regarding the protection of assets, the completeness and accuracy of operational and financial information (with emphasis on internal reporting) and the adherence to Novartis Group guidelines.

The independent auditors, PricewaterhouseCoopers AG (PwC), are responsible for expressing an opinion on the conformity of the audited financial statements with international financial reporting standards and compliance with Swiss law. The Audit and Compliance Committee is responsible for overseeing the conduct of these activities by the Group's management and the independent auditors. On behalf of the Board of Directors, the Audit and Compliance Committee nominates the independent auditor for election at the Shareholders' Meeting.

During 2003, the Audit and Compliance Committee held eight meetings. PwC attended all meetings of the Audit and Compliance Committee and all matters of importance were discussed. PwC also attended one meeting of the Board of Directors of the Group. PwC also provided to the Audit and Compliance Committee the written disclosures required by US Independence Standards Board Standard No. 1 (Communications with Audit Committees), and the Committee and the independent auditors have discussed the auditors' independence from the Group and its management, including the matters in those written disclosures.

Based upon the reviews and discussions with management and the independent auditors referred to above, the Audit and Compliance Committee recommended to the Board of Directors, and the Board approved, inclusion of the audited financial statements in the Group's Annual Report for the year ended December 31, 2003.

Duration of the Mandate and Terms of Office of the Independent Auditors

PwC assumed the existing auditing mandate for Novartis in 1996. The head auditors responsible for the mandate, Mr. James Kaiser and Mr. Daniel Suter, began serving in their roles in 2002 and 2003, respectively.

Policy on Pre-Approval of Audit and Non-Audit Services of Independent Auditors

The Audit and Compliance Committee's policy is to pre-approve all audit and non-audit services provided by PwC. These services may include audit services, audit-related services, tax services and other services, as described below.

Pre-approval is detailed as to the particular service or categories of services, and is subject to a specific budget.

Additional services may be pre-approved on an individual basis. PwC and management report to the Audit and Compliance Committee regarding the extent of services provided in accordance with this pre-approval and the fees for the services performed to date on a quarterly basis. The Audit and Compliance Committee may also pre-approve services on a case-by-case basis.

Independent Auditor Fees

The following fees were charged for professional services rendered by PwC for the 12-month period ended December 31:

(USD thousands)	**2003**	**2002**
Audit Services	13 360	10 821
Audit Related Services[(1)]	6 323	1 140
Tax Services	2 235	6 828
Other Services	2 742	1 916
Continuing Services	**24 660**	**20 705**
Services divested to IBM/Mellon[(2)]		23 230

(USD thousands)	2003	2002
Total	**24 660**	**43 935**

(1) Increase principally due to acquisition related due diligence services.

(2) These cover management and human resource consulting services which were transferred to IBM and Mellon Financial Services respectively during 2002. The amount shown comprises fees charged by PwC until the date of the transfer.

Audit Services are defined as the standard audit work that needs to be performed each year in order to issue an opinion on the consolidated financial statements of the Group and to issue reports on the local statutory financial statements. It also includes services that can only be provided by the Group auditor such as auditing of non-recurring transactions and application of new accounting policies, audits of significant and newly implemented system controls, pre-issuance reviews of quarterly financial results, consents and comfort letters and any other audit services required for US Securities and Exchange Commission or other regulatory filings.

Audit Related Services include those other assurance services provided by auditors but not restricted to those that can only be provided by the auditor signing the audit report. They comprise amounts for services such as acquisition due diligence, audits of pension and benefit plans, contractual audits of third party arrangements, assurance services on corporate citizenship reporting, and consultation regarding new accounting pronouncements.

Tax Services represent tax compliance and other services and expatriate and executive tax return services.

Other Services consist of actuarial services for pension and employee benefit plans. As required by the Sarbanes-Oxley Act, PwC can no longer provide certain of these services after May 2004. The total of audit related, tax and other services was USD 11 300 000 for 2003 and USD 33 114 000 for 2002.

Prof. Helmut Sihler, JD, PhD
January 20, 2004

Board of Directors

Dr. h.c. Daniel Vasella, MD
Chairman and CEO,
Swiss, age 50

Prof. Helmut Sihler, JD, PhD
Vice Chairman and Lead Director,
Austrian, age 73

Hans-Joerg Rudloff
Vice Chairman,

German, age 63

Dr. h.c. Birgit Breuel
German, age 66

Prof. Peter Burckhardt, MD
Swiss, age 65

Prof. Srikant Datar, PhD
Indian, age 50

Walter G. Frehner
Swiss, age 70

William W. George
American, age 61

Alexandre F. Jetzer
Swiss, age 62

Pierre Landolt
Swiss, age 56

Prof. Ulrich Lehner, PhD
German, age 57

Heini Lippuner
Swiss, age 70

Dr.-Ing. Wendelin Wiedeking
German, age 51

Prof. Rolf M. Zinkernagel, MD
Swiss, age 59

Honorary Chairmen

Alex Krauer, PhD
Marc Moret, PhD
Dr. h.c. Louis von Planta, JD[(1)]

Corporate Secretary

Ingrid Duplain, JD

(1) on August 19, 2003

Dr. h.c. Daniel Vasella, MD Swiss, age 50

Daniel Vasella graduated with a MD from the University of Bern in 1979. After holding a number of medical positions in Switzerland, he joined Sandoz Pharmaceuticals Corporation in the USA in 1988. From 1993 to 1995, Daniel Vasella advanced from Head of Corporate Marketing and Senior Vice President and Head of Worldwide Development to Chief Operating Officer of Sandoz Pharma Ltd. In 1995 and 1996, Daniel Vasella was a member of the Sandoz Group Executive Committee and Chief Executive Officer of Sandoz Pharma Ltd. After the merger that created Novartis in 1996, Daniel Vasella served as President and Chairman of the Executive Committee. In 1999, he additionally was appointed Chairman of the Board of Directors. Daniel Vasella is also a member of the Board of Directors of Pepsico, Inc., United States. In addition, he is a member of the International Board of Governors of the Peres Center for Peace in Israel and a member of several industry associations and educational institutions, including the International Business Leaders Advisory Council for the Mayor of Shanghai. In 2002, Dr. Vasella was awarded an honorary doctorate by the University of Basel.

Prof. Helmut Sihler, JD, PhD Austrian, age 73

Helmut Sihler studied philology and law in Graz, Austria and Burlington, Vermont (US) and graduated with a PhD in philology and a JD. In 1957, he joined Henkel KGaA, Germany, initially holding several positions in the marketing department for consumer goods. From 1980 to 1992, Helmut Sihler was Chairman of the Central Board of Management of Henkel KGaA. In the years 1988 and 1989, Helmut Sihler was President of the Association of the German Chemical Industry. In 1983, Helmut Sihler was elected to the Board of Ciba-Geigy AG and became a Director and Vice Chairman of Novartis after its creation in 1996. Since 1999, Helmut Sihler has acted as Novartis AG's Lead Director. In the same year, he became a member of the newly formed Chairman's Committee and the Compensation Committee; he also acts as Chairman of the Audit and Compliance Committee and has been a member of the Corporate Governance Committee since 2001. Helmut Sihler was ad interim CEO of Deutsche Telekom AG, Germany, from July to November 2002, and he is Chairman of the Supervisory Board of Porsche AG, Germany.

Hans-Joerg Rudloff German, age 63

Hans-Joerg Rudloff studied economics at the University of Bern and graduated in 1965. He joined Credit Suisse in Geneva and moved to New York in 1968 to join the investment banking firm of Kidder Peabody Inc. He was in charge of the Swiss operation and was elected Chairman of Kidder Peabody International and a member of the Board of Kidder Peabody Inc. in 1978. In 1980 he joined Credit Suisse First Boston and was elected Vice Chairman in 1983 and Chairman and CEO in 1989. From 1986 to 1990 Hans-Joerg Rudloff was also a member of the Executive Board of Credit Suisse in Zurich in charge of all securities and capital market departments. In 1990 he became a member of the Executive Board of CS First Boston and a member of the CS Holding Board. From 1994 to 1998 Hans-Joerg Rudloff was Chairman of MC-BBL in Luxembourg and joined Barclays Capital in 1998 where he is presently Chairman of the Executive Committee. In 1994, Hans-Joerg Rudloff was elected to the Board of Directors of Sandoz AG and served as its Vice Chairman from 1995 to 1996, a position that he has also held for Novartis AG since its formation in 1996. In 1999, he became a member of the Chairman's Committee and the Compensation Committee and since 2002 he has been a member of the Corporate Governance Committee. Hans-Joerg Rudloff also serves on a number of boards of other companies, including the Boards of Directors of the TBG Group (Thyssen-Bornemisza Group), Monaco, Marcuard S.A., Geneva, and RBC, Russia, the Advisory Board of Landeskreditbank Baden-Württemberg, Germany, and EnBW (Energie Baden-Württemberg), Germany. He is also on the Advisory Board of the MBA program of the University of Bern, Switzerland.

Dr. h.c. Birgit Breuel German, age 66

Birgit Breuel studied politics at the Universities of Hamburg, Oxford and Geneva. She was Minister of Economy and Transport (1978-1986) and Minister of Finance (1986-1990) of the Land Niedersachsen (Lower Saxony), the second largest state of Germany. In 1990, Birgit Breuel was elected to the Executive Board of the Treuhandanstalt, which was responsible for the privatization of the former East Germany's economy; in 1991, she also became the President of the Treuhandanstalt. From 1995 to 2000, she acted as the General Commissioner and CEO of the world exhibition EXPO 2000 in Hannover, Germany. In 1994, Birgit Breuel was elected to the Board of Directors of Ciba-Geigy AG and has served as a Director of Novartis AG since its formation in 1996. In 1999, she became a member of the Audit and Compliance Committee. Birgit Breuel is also a member of the Supervisory Board of Gruner+Jahr AG, Hamburg, Germany.

Prof. Peter Burckhardt, MD Swiss, age 65

After studying in Basel and Hamburg, Peter Burckhardt graduated with a MD from the University of Basel in 1965. He trained from 1966 to 1978 in internal medicine and endocrinology, mainly at the University Hospital of Lausanne, Switzerland, and the Massachusetts General Hospital, Boston US. Peter Burckhardt was nominated Chief of Clinical Endocrinology in 1978, and full Professor of Internal Medicine and

Chairman of the Department of Internal Medicine at the University Hospital of Lausanne in 1982. Since 1992, he has been the Head of the Medical Service at the same University. Since 1982 Peter Burckhardt has been the Chairman of the Novartis- (formerly Sandoz-) Foundation for Biomedical Research in Switzerland, and was elected in 1996 to the Board of Directors of the newly formed Novartis AG. In addition to his activities as a clinician and academic teacher, Peter Burckhardt is conducting clinical research, mainly in bone diseases and calcium metabolism. He has authored more than 300 scientific publications and is an editorial board member of several international scientific journals. He is treasurer of the International Foundation of Osteoporosis, and is a former president of the Swiss Internist's Society and member of the Appeal Committee of the Swiss Office for Drug Control. Peter Burckhardt was board member of numerous scientific societies including the Swiss Societies of Nutrition, Clinical Chemistry, Endocrinology, Bone and Mineral Research, and the Committee for Endocrinology of the European Community. Since 1990, he has been the organizer and chairman of the International Symposia on Nutrition and Osteoporosis.

Prof. Srikant Datar, PhD Indian, age 50

In 1973 Professor Srikant Datar graduated with distinction in mathematics and economics at the University of Bombay. After his studies he worked as Accountant, Planner as well as Visiting Professor and Professor at the Universities of Carnegie Mellon, Stanford and Harvard in the US. He is a Chartered Accountant and holds two masters degrees and a PhD from Stanford University. Srikant Datar holds the Arthur Lowes Dickinson Professorship at Harvard University. He is currently the Senior Associate Dean for Executive Education at the Harvard Business School. His research interests are in the areas of cost management, measurement of productivity, new product development, time-based competition, incentives and performance evaluation. He is the author of many scientific publications and has received several academic awards and honors. Srikant Datar has advised and worked with numerous renowned firms such as Du Pont, General Motors and Mellon Bank in research, development and training. He is also a member of the Board of Voyan Technology Inc., Santa Clara, California, and of Harvard Business School Interactive, Boston, Massachusetts.

Walter G. Frehner Swiss, age 70

After completing commercial school and an apprenticeship at the Bernese Cantonal Bank in Interlaken, Walter G. Frehner broadened his experience both in Switzerland and abroad. In 1958 he joined Swiss Bank Corporation (now UBS) where he held a number of increasingly senior positions. He was appointed General Manager and member of the Executive Board in 1978, President of the Executive Board (CEO) in 1987 and Chairman of the Board of Directors in 1993 from which position he retired in 1996. Walter G. Frehner has been a member of the Board of Directors of Ciba-Geigy AG since 1994 and of Novartis AG since the merger in 1996. In 2001, he became a member of the Audit and Compliance Committee. He is also a member of the Board of Directors of Bâloise Holding AG, Basel, Switzerland, where he is also the Vice Chairman.

William W. George American, age 61

William W. George received his BSIE from Georgia Institute of Technology in 1964 and his MBA from Harvard University in 1966. From 1966 to 1969, he worked in the US Department of Defense as special assistant to the Secretary of the Navy and as assistant to the Comptroller. After having served as President of Litton Microwave Cooking Products, William W. George held a series of executive positions with Honeywell from 1978 to 1989. Thereafter he served as President and Chief Operating Officer of Medtronic, Inc. in Minneapolis, and, from 1991 to 2001, as its Chief Executive Officer. From 1996 to 2002, he was Medtronic's Chairman. In 1999, William W. George was elected as a member of the Board of Directors of Novartis AG. In 2001, he became a member of the Chairman's Committee and the Chairman of the Corporate Governance Committee. William W. George is a member of the Boards of Directors of Goldman Sachs and Target Corporation (formerly Dayton Hudson). He is Senior Lecturer at Harvard Business School, having served as Executive-in-Residence at Yale School of Management and Professor of Leadership and Governance at IMD International in Lausanne, Switzerland. In addition, he is a member of the Board of Directors of Harvard Business School, National Association of Corporate Directors, Carnegie Endowment for International Peace and Minneapolis Institute of Arts.

Alexandre F. Jetzer Swiss, age 62

Alexandre F. Jetzer studied law and economics at the University of Neuchâtel, Switzerland and is a licensed attorney. After more than ten years as General Secretary of the Swiss Federation of Commerce and Industry (Vorort), Alexandre F. Jetzer joined Sandoz in 1980. In 1981 he became Member of its Group Executive Committee in the capacity of Chief Financial Officer (CFO) and, as of 1990, as Head of Management Resources and International Coordination. From 1995 to 1996, he was Vice Chairman and Chief Executive Officer of Sandoz Pharmaceuticals Corporation in East Hanover, New Jersey (US). From the time of the merger in 1996 until 1999, he was a member of the Novartis Executive Committee and Head of International Coordination, Legal & Taxes. Alexandre F. Jetzer has served as a Director of Novartis AG since its formation in 1996. He is also a member of the Board of Directors of Clariden Bank, Zurich, Switzerland.

Pierre Landolt Swiss, age 56

Pierre Landolt graduated with a Bachelor of Law degree from the University of Paris-Assas. From 1974 to 1976, he worked for Sandoz Brazil. In 1977, he acquired an agricultural estate in Brazil, cultivating organic tropical fruit as well as producing dairy products. In 1989, he founded a firm for irrigation systems. In the same year, he became the main associate and director of a bank in São Paulo. Since 1997 Pierre Landolt has been Associate and Chairman of Axial Par Ltda, São Paulo, a company investing in sustainability. In 2000, he was co-founder of Eco Carbone LLC, Delaware, US, a company focused on the development of carbon sequestration processes in Europe, Africa and South America. In 1986, Pierre Landolt was elected as a member of the Board of Directors of Sandoz AG and he has served as a Director of Novartis AG since its formation in 1996. Pierre Landolt is the President of the Sandoz Family Foundation, Glaris, Switzerland, and the Chairman of the Board of Directors of Landolt Kapital SA, Pully, Switzerland, and of Emasan AG, Basel, Switzerland. He is also a member of the Board of Directors of Syngenta AG, and of the Syngenta Foundation for Sustainable Agriculture, both in Basel, Switzerland. In addition, he serves as Chairman of the Board of Directors of Curacao International Trust Company, Curacao, Netherlands Antilles, Vaucher Manufacture Fleurier SA., Fleurier, Switzerland (Chairman), and as Vice Chairman of the Boards of Directors of Parmigiani, Mesure et Art du Temps S.A., Fleurier, Switzerland, and the Fondation du Montreux Jazz Festival, Montreux, Switzerland.

Prof. Ulrich Lehner, PhD German, age 57

Ulrich Lehner studied business administration and mechanical engineering in Darmstadt, Germany. After completing his studies in 1972, he was a teaching and research assistant at the Institute for Business Administration at the Darmstadt Technical University. He earned a Doctorate in Economics in 1975. From 1975 to 1981, Ulrich Lehner was an auditor with Deutsche Treuhand-Gesellschaft AG in Düsseldorf. In 1981, he joined Henkel KGaA as Head of Domestic Affairs in the Central Accounting/Tax Department. After heading the Controlling Department of Fried. Krupp GmbH in Essen, Germany, from 1983 to 1986, he returned to Henkel KGaA as Finance Director. From 1991 to 1993, Ulrich Lehner headed the then-formed Management Holding, Henkel Asia-Pacific Ltd., in Hong Kong. From 1994 to 1995, he served Henkel KGaA, Düsseldorf, as Corporate Vice President of the Finance and Controlling Department, and, from 1995 to 2000, as Executive Vice President, Finance/Logistics. He was appointed Deputy President in 1999 and President and CEO of Henkel KGaA in 2000. Ulrich Lehner was elected to the Board of Directors of Novartis AG in 2002. He is a member of the Audit and Compliance Committee. He also serves as a member of the Board of Directors of Dresdner Bank, Luxembourg, Luxembourg, of Ecolab Inc., St. Paul, USA, and E.ON AG, Düsseldorf, Germany. In addition, he is a member of the Advisory Board of Dr. August Oetker KG, Bielefeld, Germany, and of Krombacher Brauerei, Krombach, Germany. He is an Honorary Professor at the University of Münster, Germany.

Heini Lippuner Swiss, age 70

After completing his commercial studies in St. Gallen, Switzerland, Heini Lippuner began his career with Geigy Ltd in the Dyestuffs Division. Following a number of foreign assignments, he headed the Dyestuffs and Chemicals Division in Germany from 1968 to 1972. He served as a member of the worldwide Dyestuffs and Chemicals Division's management committee of Ciba-Geigy Ltd from 1973 to 1982, and became the Head of this Division in 1982. In 1986, Heini Lippuner became a member of the Executive Committee of the Ciba-Geigy Group and took over as its Chairman and Chief Operating Officer in 1988. In 1996, he stepped down from this position and was elected to the Board of Directors of the newly created Novartis AG. Since 1999, he has also been a member of the Chairman's Committee. Heini Lippuner is also member of the Board of Directors of Buehler AG, Uzwil, Switzerland, and of Asset Link AG, Reinach BL, Switzerland. In addition, he is Chairman of the Foundation Board of the International Institute for Management Development (IMD) in Lausanne, Switzerland.

Dr.-Ing. Wendelin Wiedeking German, age 51

Born in Ahlen, Germany, Wendelin Wiedeking studied mechanical engineering and worked as a scientific assistant in the Machine Tool Laboratory of the Rhine-Westphalian College of Advanced Technology in Aachen. His professional career began in 1983 as Director's Assistant in the Production and Materials Management area of Dr.-Ing. h.c. F. Porsche AG in Stuttgart-Zuffenhausen. In 1988 he moved to the Glyco Metall-Werke KG in Wiesbaden as Division Manager, where he advanced by 1990 to the position of Chief Executive and Chairman of the Board of Management of Glyco AG. In 1991 he returned to Porsche AG as Production Director. A year later, the Supervisory Board appointed him spokesman of the Executive Board (CEO), and in 1993 its Chairman. He is also a member of the Board of Directors of Deutsche Telekom AG, Germany, and of Eagle Picher Incorporated, Phoenix, Arizona.

Prof. Rolf M. Zinkernagel, MD Swiss, age 59

Rolf M. Zinkernagel graduated from the University of Basel with a MD in 1970. Since 1992 he has been Professor and Director of the Institute of Experimental Immunology at the University of Zurich. Rolf M. Zinkernagel has received many awards and prizes for his work and contribution to science, the most prestigious being the Nobel Prize for Medicine which he was awarded in 1996. In 1999, Rolf M. Zinkernagel was elected to the Board of Directors of Novartis AG. He has been a member of the Corporate Governance Committee since 2001. He is a member of the Swiss Society of Allergy and Immunology, the American Associations of Immunologists and of Pathologists, the ENI European Network of Immunological Institutions, the International Society for Antiviral Research, and a member of the Executive Board of the International Union of Immunological Societies (IUIS). Rolf M. Zinkernagel was a member of the Board of Directors of Cytos Biotechnology AG, Schlieren/Zurich, Switzerland until April 2003. He is also a member of the Scientific Advisory Boards of: The Lombard Odier, Darier Hentsch & Cie Bank, Geneva, Switzerland; BT & T, Jersey; Bio-Alliance AG, Frankfurt, Germany; Aravis General Partner Ltd., Cayman Islands; Cytos Biotechnology AG, Schlieren/Zurich, Switzerland; Bioxell, Milano, Italy; Esbatech, Zurich, Switzerland; Novimmune, Geneva, Switzerland, and Mann-Kind, Sylmar CA, US Rolf M. Zinkernagel is also a Science Consultant to: GenPat77, Berlin/Munich, Germany; Aponetics AG, Witterswil, Switzerland; Solis Therapeutics, Palo Alto, US, and Ganymed, Mainz, Germany.

Executive Committee

Dr. h.c. Daniel Vasella, MD
Chair since 1996;
Swiss, age 50

Urs Baerlocher, JD
Head of Legal and General Affairs;
Member since 1999;
Swiss, age 61

Raymund Breu, PhD
Chief Financial Officer;
Member since 1996;
Swiss, age 58

Paul Choffat, JD
Head of Consumer Health;
Member since 2002;
Swiss, age 54

Thomas Ebeling
Head of Pharmaceuticals
Member since 1998;
German, age 44

Prof. Mark C. Fishman, MD
Head of Pharmaceuticals Research;
Member since 2002;
American, age 53

Permanent Attendees to the Executive Committee

Juergen Brokatzky-Geiger PhD
Head of Human Resources;
German, age 51

Steven Kelmar
Head of Public Affairs and Communications;
American, age 50

Secretary to the Executive Committee

Max Kaufmann, PhD

Dr. h.c. Daniel Vasella, MD Swiss, age 50

Daniel Vasella graduated with a MD from the University of Bern in 1979. After holding a number of medical positions in Switzerland, he joined Sandoz Pharmaceuticals Corporation in the US in 1988. From 1993 to 1995, Daniel Vasella advanced from Head of Corporate Marketing and Senior Vice President and Head of Worldwide Development to Chief Operating Officer of Sandoz Pharma Ltd. In 1995 and 1996, Daniel Vasella was a member of the Sandoz Group Executive Committee and Chief Executive Officer of Sandoz Pharma Ltd. After the merger that created Novartis in 1996, Daniel Vasella served as President and Chief Executive Officer. In 1999, he additionally was appointed Chairman of the Board of Directors. Daniel Vasella is also a member of the Board of Directors of Pepsico, Inc., United State. In addition, he is a member of the International Board of Governors of the Peres Center for Peace in Israel and a member of several industry associations and educational institutions, including the International Business Leaders Advisory Council for the Mayor of Shanghai. In 2002, Dr. Vasella was awarded an honorary doctorate by the University of Basel.

Urs Baerlocher, JD Swiss, age 61

Urs Baerlocher earned his JD at the University of Basel and was admitted to the bar in 1970. After having worked as a tax lawyer, he joined Sandoz in 1973, and held a number of key positions including Head of Strategic Planning and Head of Group Reporting. In 1987, he was made a member of the Sandoz Executive Board, responsible i.a. for Strategic Planning, HR, Legal, Taxes, Patents and Trademarks. In 1990, he became CEO of the Sandoz Nutrition Division and then, in 1993, CEO of Sandoz Pharma. In 1995, Urs Baerlocher assumed the position of Chairman of the Board of Sandoz Deutschland GmbH (Germany) and Biochemie GmbH (Austria). After the formation of Novartis in 1996 he served as Head of International Coordination, Legal, Tax, Insurance, before his responsibilities were widened to include Corporate Intellectual Property, Corporate Health, Safety & Environment and Corporate Security.

Raymund Breu, PhD Swiss, age 58

Raymund Breu graduated from the Swiss Federal Institute of Technology (ETH) in Zurich, Switzerland, with a PhD in mathematics. In 1975, he joined the Treasury Department of the Sandoz Group, and, in 1982, became the Head of Finance for the Sandoz affiliates in the UK. In 1985, he was appointed Chief Financial Officer of Sandoz Corporation in New York, where he was responsible for all Sandoz Finance activities in the US. In 1990, he became Group Treasurer of Sandoz Ltd., Basel, Switzerland, and, in 1993, Head of Group Finance and Member of the Sandoz Executive Board. Following the formation of Novartis in 1996, he assumed his current position as Chief Financial Officer and member of the Group Executive Committee. Raymund Breu is also a member of the Board of Directors of Swiss Re, Chiron (USA) and of the SWX Swiss Exchange and of its admission panel and its takeover commission.

Paul Choffat, JD Swiss, age 54

Paul Choffat holds a JD from the University of Lausanne, Switzerland, and an MBA from the International Institute for Management Development in Lausanne. He started his professional career with Nestlé in Zurich, Switzerland, and London, UK. From 1981 to 1985, he was a project manager at McKinsey & Company in Zurich. Between 1987 and 1994, he held a number of leading positions at Landis & Gyr in Zug, Switzerland, where he became a member of the Executive Board and Head of the Communications Division. In 1994, he moved to Von Roll in Gerlafingen, Switzerland, as CEO. Paul Choffat joined Sandoz in 1995 as Head of Management Resources and International Coordination. He subsequently became a member of the Executive Board and was responsible for Group Planning and Organization. During the Novartis merger he headed the integration office. In 1996, he returned to line management as CEO of Fotolabo SA, Montpreveyres-sur-Lausanne, Switzerland, where he remained for three years before becoming an entrepreneur and private investor in 1999. He rejoined Novartis in January 2002 as Head of Novartis Consumer Health and member of the Group Executive Committee.

Thomas Ebeling German, age 44

Thomas Ebeling graduated from the University of Hamburg with a degree in psychology. From 1987 to 1991, he held several positions of increasing responsibility at Reemstma Germany. In 1991, he joined Pepsi-Cola Germany as Marketing Director. He became Marketing Director for Germany and Austria in 1993 and was National Sales and Franchise Director for Pepsi's retail and on-premise sales from 1994. He then served as General Manager of Pepsi-Cola Germany. In 1997, Thomas Ebeling joined Novartis as General Manager of Novartis Nutrition for Germany and Austria. After having served as CEO of Novartis Nutrition, he became CEO of Novartis Consumer Health worldwide, and then Chief Operating Officer of Novartis Pharmaceuticals, before attaining his present position in 2000.

Prof. Mark C. Fishman, MD American, age 53

Mark C. Fishman is a graduate of Yale College and Harvard Medical School. He completed his Internal Medicine residency, Chief residency, and Cardiology training at the Massachusetts General Hospital. He serves on several editorial boards and has worked with national policy and scientific committees including those of the National Institute of Health (NIH) and Wellcome Trust. He has been honored with many awards and distinguished lectureships and is a Fellow of the American Academy of Arts and Sciences. Before joining Novartis, Mark C. Fishman was Professor of Medicine at Harvard Medical School and Chief of Cardiology and Director of the Cardiovascular Research Center at the Massachusetts General Hospital in Boston.

Juergen Brokatzky-Geiger, PhD German, age 51

Juergen Brokatzky-Geiger graduated with a PhD in Chemistry from the University of Freiburg, Germany, in 1982. He joined Ciba-Geigy in 1983 as a Laboratory Head in the Pharmaceutical Division. After a job rotation in Summit, NJ, from 1987 to 1988 he held a number of positions of increasing responsibility, including Group Leader of Processes in R&D, Head of Processes in R&D and Head of Process Development and Pilot Plant Operations. During the merger of Ciba-Geigy and Sandoz in 1996, Juergen Brokatzky-Geiger was appointed Integration Officer of Technical Operations. Thereafter, he became the Head of Chemical and Analytical Development and, from 1999 until August 2003, he served as the Global Head of Technical R&D. Juergen Brokatzky-Geiger was appointed to his present position as Head of Human Resources on September 1, 2003.

Steven Kelmar American, age 50

Steven Kelmar graduated with a Bachelor of Arts in Public Administration and Economics from Pennsylvania State University and spent 14 years (1979-1993) in public service in several executive positions. He was Chief of Staff to two Members of the US Congress and also worked in several legislative capacities for Members of the US Senate and the House of Representatives before his appointment by President Bush in 1990 to the position of Assistant Secretary for Legislation in the US Department of Health and Human Services. In this capacity, he served as one of the federal government's chief policy makers during a time of major national re-examination of healthcare delivery systems. He managed the activities of the federal government's largest legislative policy offices and served as one of the principal members of the department's budget council which sets priorities for various federal agencies such as: HCFA, FDA, Social Security and the Public Health Service. In 1993, he joined Strategic Management Association of Alexandria Viginia, a firm specializing in healthcare consulting, where he was Vice President, Governmental Affairs. In 1997, he moved to Medtronic Inc., to become Senior Vice President of External Relations, overseeing Corporate Public Relations, Internal Communications, Branding, Government Affairs, the Corporate Coverage and Reimbursement Group, the Corporate E-business Center and the Medtronic Foundation. His External Relations responsibility also included all of Medronic's specific strategic planning initiatives. In February 2003, Steven Kelmar joined Novartis as Head of Public Affairs and Communications.

Business Unit Heads

Name, nationality and age	Head of Business Unit	Active for Novartis since	Significant positions previously held	Education

Name, nationality and age	Head of Business Unit	Active for Novartis since	Significant positions previously held	Education
David Epstein, BSc, MBA American, 42	Oncology (since 2000)	1989	Chief Operating Officer and member of the Executive Committee of Novartis Pharmaceuticals Corporation USA	Bachelor of Science, Pharmacy (Rutgers University) and MBA (Columbia University)
Anthony Rosenberg BSc, MSc British, 50	Transplantation and Immunology (since 2001)	1980	Various leading positions with Sandoz UK and Novartis Group	Bachelor of Science (University of Leicester) and Master of Science (University of London)
Flemming Ørnskov Danish, 45	Ophthalmics (since 2003)[1]	2001	Head of Cardiovascular Products Group, Novartis Pharmaceuticals Corporation USA	MD (University of Copenhagen), MBA(Insead), MPH (Harvard University)
Peter Hewes BA Econ. British, 56	Mature Products (since 2000)	1976	Regional European Head of Novartis Pharma; Country Head of Sandoz Portugal	Bachelor of Arts, Economics (University of Reading, UK)
Christian Seiwald MBA Austrian, 48	Generics (since 2001)	1982	Country Head of Novartis Austria; Head of Novartis Austria Pharma Operations	Graduate in Economics (Innsbruck University, Austria)
Michel Orsinger[2] MBA Swiss, 46	OTC (since 2002)	1993	Senior Vice President Europe, Middle East and Africa for Novartis' Nutrition and OTC Business Unit; General Manager Sandoz Nutrition Unit Switzerland	Graduate of Business School (St. Gallen, Switzerland)
Kurt T. Schmidt[3] BSc, MBA American, 46	Animal Health (since 2002)	2002	General Manager Food for Kraft Foods Germany; Marketing Director Wrigley Company for German-speaking Europe, Eastern Europe and the Middle East	Bachelor of Science (United States Naval Academy, Annapolis) and MBA (University of Chicago)
Michel Gardet MA Business French, 46	Medical Nutrition (since 2002)	1991	General Manager of Novartis Consumer Health Iberia; Head of Health and Functional Nutrition Novartis	Graduate of the Ecole Supérieure de Commerce Paris
Frank Palantoni[4] American, 46	Infant & Baby (since 2002)	1998	President and CEO of Gerber US Marketing; positions with Procter & Gamble, Nabisco and Groupe Danone	Bachelor of Science (Tufts BSc, MBA (since 2002) management University) and MBA (Columbia University)
Joseph T. Mallof BSc, MBA American, 52	CIBA Vision (since 2002)	2002	Regional President of S.C. Johnson & Son for the Americas Asia Pacific; General Manager of Procter & Gamble in Japan and the Philippines	Bachelor of Science (Purdue University) and MBA (University of Chicago)

(1) In 2003, Luzi von Bidder was succeeded by Flemming Ørnskov

(2) As of January 1, 2004, Larry Allgaier

(3) As of February 1, 2004, George Gunn

(4) As of February 1, 2004, Kurt T. Schmidt

Further Information on Corporate Governance

The list below contains references to additional information on the corporate governance of Novartis.

Topic	Location
Share Capital and Convertible Bonds	
Capital structure	Articles of Incorporation of Novartis AG (http://www.novartis.com/investors/en/governance.shtml)
Share capital movements	Notes 17 of the Group's consolidated financial statements
Shareholder rights	
Information on the Novartis share and on the shareholders' participation rights	Operating and Financial Review (see page 136-137) Articles of Incorporation of Novartis AG (http://www.novartis.com/investors/en/governance.shtml) Investors Relations Information: http://www.novartis.com/investors
Board of Directors and Executive Committee	
Internal organization and allocation of responsibilities	Board Regulations and Board Committee Charters (http://www.novartis.com/investors/en/governance.shtml)
CEO and Senior Financial Officers	
Novartis Code of Ethical Conduct	(http://www.novartis.com/investors/en/governance.shtml)
Further information	
Sources for further information and anticipated key reporting dates in 2004	(http://www.novartis.com/investors/en/governance.shtml)

Operating and Financial Review

Key financial developments in 2002

Group sales up 19% (11% in local currencies) driven by strong growth in Pharmaceuticals and Sandoz generics

Pharmaceuticals consistently outperforms industry average in virtually all major markets throughout 2003, delivering sales growth of 18% (11% in local currencies), driven particularly by the cardiovascular and oncology franchises and new product launches

Sandoz posts dynamic sales growth of 60% (+47% in local currencies) as a result of the integration of Lek, geographic expansion and successful product launches

Medical Nutrition assets of Mead Johnson & Company are in the process of being acquired for USD 385 million

Operating income climbs 16% in USD driven by volume expansions, product mix enhancements and productivity gains

Net income up 6% owing to strong operating performance

Operating cash flow rises 27% and free cash flow 23%

Earnings per share rise 8% and proposed dividend rises 5%

All financial reporting now in US dollars

	2003 USD millions	2002 USD millions	% Change
Sales	**24 864**	**20 877**	**19**
Operating income	**5 889**	**5 092**	**16**
Net income	**5 016**	**4 725**	**6**
Change in net liquidity	317	-1 054	
Equity at year-end	30 429	28 269	
Earnings per share (USD)	2.03	1.88	8
Dividends per share (CHF)[(1)]	1.00	0.95	5

(1) 2003: Proposal to the shareholders' meeting

This operating and financial review should be read in conjunction with the consolidated financial statements. The consolidated financial statements and the financial information discussed below have been prepared in accordance with International Financial Reporting Standards (IFRS). Please see note 32 of the consolidated financial statements for a discussion of the significant differences between IFRS and US Generally Accepted Accounting Principles (US GAAP).

Factors affecting results

The global healthcare market is growing rapidly due to, among other reasons, the aging population in developed countries, unmet needs in many therapeutic areas (such as cancer and cardiovascular disease), the adoption of more industrialized lifestyles in emerging economies, and increased consumer demand fueled by broad and rapid access to information. At the same time, the healthcare industry is under increasing pressure to reduce prices as payors in the public and private sectors seek to curb rising healthcare costs.

Novartis Group revenues are directly related to the Group's ability to identify high potential products while they are still in development and to bring them to market quickly and effectively. Efficient and productive research and development is crucial in this environment as Novartis, like

its competitors, searches for efficacious and cost-efficient pharmaceutical solutions to health problems. The necessity for adequate resources to access the full range of new technologies has been one reason for industry consolidation, and the increase in collaborations between leading companies and niche players at the forefront of their particular technology areas. The growth in new technology, particularly genomics, will almost certainly have a fundamental impact on the pharmaceutical industry as a whole, and upon the Group's future development.

In addition, competitive conditions have intensified as a result of regulation, price reductions, reference prices, higher patient co-payments and increased pressure on physicians to limit prescribing. Pressure on the Novartis Pharmaceutical Division and other pharmaceutical companies to lower prices is expected to increase primarily as a result of government initiatives to reduce patient reimbursement; restrict prescribing levels; increase the use of generics and impose overall price cuts. The introduction of technologically innovative products and devices by competitors and growing product distribution anomalies, mainly in the EU, pose additional challenges. Exchange rate exposure also affects the Group's results as Novartis has both sales and costs in many currencies other than the US dollar. This gives rise to both transaction exposure in subsidiary financial statements due to foreign currency denominated transactions and translation exposure from converting foreign subsidiary results and balance sheets into the Group's US dollar consolidated financial statements. The Group's results have not been significantly affected by inflation.

Critical accounting policies

The Novartis Group's principal accounting policies are set out in note 1 of the Group's consolidated financial statements and conform with International Financial Reporting Standards (IFRS). Significant judgments and estimates are used in the preparation of the consolidated financial statements which, to the extent that actual outcomes and results may differ from these assumptions and estimates, could affect the accounting in the following areas described in this section.

Long-lived assets are regularly reviewed for impairment, including identifiable intangibles and goodwill, whenever events or changes in circumstance indicate that the balance sheet carrying amount of the asset may not be recoverable. In order to assess if there is any impairment, estimates are made of the future cash flows expected to result from the use of the asset and its eventual disposition. If the balance sheet carrying amount of the asset is more than the higher of its value in use to Novartis or its anticipated net selling price, an impairment loss for the difference is recognized. Actual outcomes could vary significantly from such estimates of discounted future cash flow. Factors such as changes in the planned use of buildings, machinery or equipment, or closing of facilities or lower than anticipated sales for products with capitalized rights could result in shortened useful lives or impairment.

The Novartis Group has extensive investments in marketable securities and has significant derivative financial instrument positions which are mainly, but not exclusively, held for hedging underlying positions. Under current IFRS accounting rules, unrealized gains and losses on marketable securities and cash flow related derivative financial instruments that qualify for hedge accounting are recorded in separate components of equity and not in the income statement. Group management regularly reviews such positions to determine the extent to which unrealized losses indicate the investment is impaired. Depending on the stock market and other factors at the time of this review it may be necessary to recognize an impairment by transferring these losses out of the equity component into the Group's income statement.

Novartis has investments in associated companies (defined generally as investments of between 20% and 50% of a company's voting shares) that are accounted for by using the equity method. Due to the various estimates that have been made in applying the equity method, the amounts recorded in the consolidated financial statements in respect of Roche Holding AG and Chiron Corporation may require adjustments in the following year as more financial and other information becomes publicly available.

The Novartis Group sponsors pension and other retirement plans in various forms covering employees who meet eligibility requirements. These plans cover the majority of Group employees. Several statistical and other factors which attempt to anticipate future events are used in calculating the expense and liability related to the plans. These factors include assumptions about the discount rate, expected return on plan assets and rate of future compensation increases, as determined by Group management within certain guidelines. In addition, the Group's actuarial consultants also use statistical information such as withdrawal and mortality rates to estimate these factors. The actuarial assumptions used may differ materially from actual results due to changing market and economic conditions, higher or lower withdrawal rates or longer or shorter life spans of participants. These differences may result in a significant impact to the amount of pension income or expense recorded in future years.

The Group has provisions for environmental remediation costs. The material components of the environmental provisions consist of costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe. Future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation, the percentage of waste material attributable to Novartis at the remediation sites relative to that attributable to other parties, and the

financial capabilities of the other potentially responsible parties.

Novartis believes that its total reserves for environmental matters are adequate based upon currently available information, however, given the inherent difficulties in estimating liabilities in this area, it cannot be guaranteed that additional costs will not be incurred beyond the amounts accrued. The effect of resolution of environmental matters on results of operations cannot be predicted due to uncertainty concerning both the amount and the timing of future expenditures and the results of future operations. Management believes that such additional amounts, if any, would not be material to the Novartis financial condition but could be material to the Novartis results of operations in a given period.

A number of Novartis Group subsidiaries are subject to litigation arising out of the normal conduct of their businesses, as a result of which claims could be made against them which might not be covered by existing provisions or by insurance. Group management believes that the outcomes of such actions if any, would not be material to the Novartis financial condition but could be material to the Novartis results of operations in a given period.

The International Accounting Standards Board is entering a period of critically examining current International Financial Reporting Standards with a view to increasing international harmonization of accounting rules. This process of amendment and convergence of worldwide accounting rules could result in significant amendments to the existing rules within the next two years in such areas as the timing of recognition of sales and other revenues arising from collaborative agreements with marketing and distribution partners, accounting for share based compensation, goodwill and intangibles, employee benefit plans, marketable securities and derivative financial instruments and classification of balance sheet positions as debt or equity.

Results of operations

	Year ended December 31, 2003 UDS millions	Year ended December 31, 2002 USD millions	Change in %
Sales	**24 864**	**20 877**	**19**
Cost of Goods Sold	-5 894	-4 994	18
Marketing & Sales	-7 854	-6 737	17
Research & Development	-3 756	-2 843	32
General & Administration	-1 471	-1 211	21
Operating income	**5 889**	**5 092**	**16**
Result from associated companies	-200	-7	
Financial income, net	379	613	-38
Income before minority interests	**6 068**	**5 698**	**6**
Taxes	-1 008	-959	5
Income before minority interests	**5 060**	**4 739**	**7**
Minority interests	-44	-14	
Net income	**5 016**	**4 725**	**6**

In US dollars, Group sales in 2003 increased by 19% over 2002 to USD 24.9 billion (+11% in local currencies); operating income grew by 16% to USD 5.9 billion; net income increased by 6% to USD 5.0 billion; cash flow from operating activities increased 27% to USD 6.7 billion and free cash flow (excluding acquisition of subsidiaries and the voting shares of Roche Holding AG) rose by 23% in US dollars to USD 3.6 billion.

Pharmaceuticals accounted for 64% of the Group's total sales and Consumer Health 36%. The two divisions generated 77% and 23% of divisional operating income, respectively.

Geographically, 45% of sales were generated in the NAFTA region (41% in the USA), 35% in Europe and 20% in the rest of the world.

Sales growth was driven by a volume increase of 8%. All business units except Sandoz and CIBA Vision benefited from small price increases which in total amounted to 1%. The sales increase due to acquisitions was 2%. The sales performance in US dollars benefitted from a 8% positive currency effect as the US dollar weakened on average 16% against the Swiss franc, 8% against the yen and 20% against the Euro.

The Group operating margin in 2003 was 23.7% of sales, a decrease of 0.7 percentage points over the 24.4% of sales of the previous year. As a percentage of sales, productivity gains and improvements in the product mix led to a 0.2 percentage point reduction in the cost of goods sold, while Marketing & Sales expenses decreased by 0.7 percentage point, although still increasing by 17% over 2002, to support product launches and key growth drivers. Research & Development investments were increased by 32% mainly due to increased development expenses, especially connected with milestone payments on in-licenced compounds, and due to the Pharmaceuticals Division research strategy of establishing a new facility in Cambridge, USA. General & Administration expenses grew by 21%, 2% more than sales, due to several factors including the write-down of certain investments in biotechnology companies, exchange rate movements and royalty payments. As a result of all these factors, operating income increased 16% in US dollars to USD 5.9 billion.

Sales

	Year ended December 31, 2003 USD millions	Year ended December 31, 2002 USD millions	Change in USD %	Change in local currencies %
Pharmaceuticals	**16 020**	**13 528**	**18**	**11**
Sandoz	2 906	1 817	60	47
OTC	1 772	1 521	17	7
Animal Health	682	623	9	3
Medical Nutrition	815	711	15	3
Infant & Baby	1 361	1 333	2	3
CIBA Vision	1 308	1 135	15	7
Consumer Health ongoing	**8 844**	**7 140**	**24**	**16**
Divested Health & Functional Food activities		209		
Consumer Health	**8 844**	**7 349**	**20**	**12**
Total	**24 864**	**20 877**	**19**	**11**

Pharmaceuticals Division

The core Pharmaceuticals business sustained above market sales growth throughout the year to deliver an 18% rise in sales (11% in local currencies). Novartis moved up to the number five position in the global healthcare ranking (based on November 2003 IMS data) as it captured further segment share in the key US market (sales: +15% in USD), Japan (sales: +23%: +14% in local currencies), the second largest single market, as well as in Europe (sales: +25%: 6% in local currencies). Based on latest available data (IMS), the company's overall share of the global healthcare market has risen to 4.4%.

The cardiovascular (+36%; +29% in local currencies) and oncology franchises (+36%; +26% in local currencies) continued to be the main drivers, led in particular by the flagship brands *Diovan, Lotrel, Lescol, Gleevec/Glivec, Zometa and Femara*.

Newly launched products made further in-roads: *Zelnorm/Zelmac* generated revenues of USD 165 million, with US total and new prescriptions growing 32% in the fourth quarter. Meanwhile, sales of *Elidel* reached USD 235 million, as the product extended its position as the number-one branded eczema treatment worldwide.

Primary Care

Diovan (+46%; +38% in local currencies; US: +42%), became the world's leading angiotensin receptor blocker (ARB) in 2003 and has continued to capture further market share from its competitors. With the heart failure indication now approved in more than 40 markets, the flagship brand continued to outpace its fast-growing ARB market segment, with year-to-date sales in the US alone already surpassing the USD 1 billion mark by December.

The fourth quarter was marked by the publication of the VALIANT mega-trial at the American Heart Association Scientific Session. The results, which showed that *Diovan* reduces the risk of death by 25% in post-myocardial infarction patients, will help drive *Diovan* as the new gold standard in the treatment of hypertension. A supplemental new drug application based on these results has already been filed in the US.

Diovan HCT (valsartan + hydrochlorothiazide) became the second most prescribed product in the combination ARB segment (mono and combination therapy) in the US. This rapid growth was powered by the roll-out of new dosage forms, the heart failure indication and new treatment guidelines. In Germany, the flagship brand secured the number one rank, buoyed by the success of *Co-Diovan* 160/12.5 mg.

Lotrel (US: +20%), the leading combination treatment for hypertension, posted strong full-year prescription growth while fourth-quarter sales were spurred by a disease awareness campaign launched in August. Overall, the brand steadily gained market segment share as a result of: new guidelines recommending more aggressive treatment; a new focus on patients who are not controlled by ACE inhibitors and calcium channel blockers; and the successful launch of the new dosage strength, which add efficacy and dosing flexibility.

Lescol (+27%; +18% in local currencies; US: +19%; cholesterol reduction), continued strong sales growth driven by proven benefits in high-risk patients, the successful rollout of the XL (extended release) formulation in France, Italy and Spain and the launch of the secondary prevention indication in the US.

Trileptal (+42%; +39% in local currencies; US: +43%; epilepsy), clearly outpaced its market. In August, the FDA granted approval for the use of *Trileptal* as monotherapy in children, making it the only new anti-epileptic drug indicated for the treatment of partial seizures as a mono-therapy and adjunctive therapy in adults and children of 4 years and upwards.

Elidel (+147%; +144% in local currencies; US: +125%; non-steroid eczema treatment), achieved full year sales of USD 235 million, generated predominantly in the US. In less than two years since its first launch, *Elidel* is the clear number-one branded prescription treatment for eczema and is now available in more than 38 markets.

Zelnorm/Zelmac (irritable bowel syndrome with constipation) revenues reached USD 165 million (US: USD 132 million) reflecting the product's therapeutic benefits and the increase in disease awareness. Total US prescriptions as well as new prescriptions recently increased more than 32%. *Zelnorm/Zelmac* has now been launched in 39 countries and was filed, in the fourth quarter, for the new indication of chronic constipation in the US.

Oncology

Gleevec/Glivec (+84%; +68% in local currencies; US: +41%), for chronic myeloid leukemia (CML) and gastro-intestinal stromal tumors (GIST), continued to grow dynamically, boosted by its use as first-line therapy and its approval for GIST in the US, Europe and Japan. The

number of patients on the *Gleevec/Glivec* Patient Assistance Program rose to more than 8 000 worldwide, providing treatment to many needy patients who otherwise would not have access.

Zometa (+83%; +74% in local currencies; US: +59%), the most prescribed intravenous bisphosphonate for bone metastases, continued to post dynamic growth and is on track to become a blockbuster in 2004. Several launches in Europe fueled additional growth, as did the continued expanded use into a number of tumor types including lung, prostate, multiple myeloma, and breast.

Sandostatin (+14%; +7% in local currencies; US: +13%; acromegaly and carcinoid syndrome) sales continued to grow, driven by the US.

Femara (first-line therapy for advanced breast cancer in postmenopausal women) achieved a 30% rise (+18% in local currencies; US: +22%) in sales supported by its strong profile and the landmark results of the MA-17 study published in the fourth quarter. These showed a 43% reduction in the risk of cancer recurrence, in addition to significantly improved disease-free survival in postmenopausal women with early breast cancer who had completed five years of tamoxifen therapy.

Ophthalmics

Visudyne (+24%; +16% in local currencies; US: +8%; treatment in age-related macular degeneration) continued to post overall growth, benefiting from increased market penetration and strong sales in Europe, Latin America and the Asia Pacific regions.

Transplantation

Neoral/Sandimmun (immunosuppression) sales declined only modestly (-10% in local currency) despite the use of lower dosing regimens in the US, in addition to generic competition and compulsory price-cuts in Germany and Italy. Momentum was sustained in Japan even though reimbursement was reduced by the authorities.

Myfortic, the new enteric-coated formulation of mycophenolate sodium used to prevent organ rejection, gained approval in 27 countries by the year end.

Top twenty Pharmaceuticals Division Products 2003

Brands	Therapeutic Area	USA USD millions	% change in local currencies	Rest of world USD millions	% change in local currencies	Total USD millions	% change in local currencies
Diovan/Co-Diovan	Hypertension	1 107	42	1 318	34	2 425	38
Gleevec/Glivec	Chronic myeloid leukemia/Gastro-intestinal stromal tumors	299	41	829	82	1 128	68
Neoral/Sandimmun	Transplantation	216	-21	804	-6	1 020	-10
Lamisil (group)	Fungal infections	428	2	550	9	978	5
Zometa	Cancer complications	574	59	318	118	892	74
Lotrel	Hypertension	777	20			777	20
Lescol	Cholesterol reduction	309	19	425	18	734	18
Sandostatin (group)	Acromegaly	318	13	377	2	695	7
Voltaren (group)	Inflammation/pain	8	-33	591	-5	599	-6
Cibacen/Lotensin/ Cibadrex	Hypertension	306	-9	127	-8	433	-9
Top ten products		**4 342**	**21**	**5 339**	**20**	**9 681**	**20**
Trileptal	Epilepsy	305	43	92	27	397	39

Brands	Therapeutic Area	USA USD millions	% change in local currencies	Rest of world USD millions	% change in local currencies	Total USD millions	% change in local currencies
Miacalcic	Osteoporosis	239		150	-14	389	-6
Tegretol (incl. CR/XR)	Epilepsy	122	1	262	-1	384	
Exelon	Alzheimer's disease	181	8	186	19	367	13
Visudyne	Wet form of age-related macular degeneration	181	8	176	27	357	16
Leponex/Clozaril	Schizophrenia	86	-28	223	-2	309	-12
Foradil	Asthma	9	-61	280	2	289	-4
Elidel	Eczema	205	125	30	575	235	144
Famvir1[(1)]	Viral infections	146	-7	87	19	233	
HRT Range	Hormone replacement	125	-9	106	-24	231	-16
Top twenty products		**5 941**	**18**	**6 931**	**16**	**12 872**	**17**
Rest of portfolio		643	-9	2 505	-9	3 148	-9
Total		**6 584**	**15**	**9 436**	**8**	**16 020**	**11**

(1) 2002 restated because of transfer to other Business Units.

Consumer Health Division

Sales in Consumer Health's ongoing businesses grew a substantial 24% (+16% in local currencies) driven mainly by the generics Business Unit, Sandoz, and fueled by above-market sales growth throughout the other businesses, of which OTC, Medical Nutrition and CIBA Vision all delivered double-digit sales increases in USD.

Sandoz

Sales at Sandoz rose 60% (+47% in local currencies), driven by the US retail pharmaceuticals business and the Lek acquisition, which contributed 38 percentage points to sales growth. The US sales increased by 56% fuelled by the strong sales of AmoxC, the generic version of Augmentin®, and by the successful roll-out of prescription loratadine (a generic version of the allergy treatment Claritin®). Further impetus was added through the rollout of citalopram in the UK (a generic version of the antidepressant Celexa®) and of omeprazole in the US (a generic version of the ulcer drug Prilosec®).

The industrial generics franchise posted a sales increase of 12% in US dollars and a 6% decrease in local currencies. A new biopharmaceuticals franchise was added, focused on the manufacture of active ingredients, mostly modern recombinant products.

OTC (over-the-counter self medications)

In OTC sales rose 17% (+7% in local currencies), led by *Nicotinell/Habitrol* (smoking cessation), *Lamisil* (topical antifungal) and by *Ex-Lax/Benefiber* (laxative) with US private-label loratadine also contributing to overall sales growth.

Animal Health

Sales were up 9% in US dollars or 3% in local currencies to USD 682 million.

Sales at the companion-animal franchise grew in double-digits, driven in particular by strong market share gains of the new brands *Deramaxx* (pain and inflammation control associated with osteoarthritis in dogs) and *Milbemax* (intestinal worm control in dogs and cats). *Fortekor*

(heart/kidney disease) strengthened by a novel palatable formulation for cats, complemented results again with a sales increase well above market growth.

In the farm-animal franchise *Agita*, the innovative farm fly control product consistently added to sales, while the therapeutic anti-infectives business contended with increased generic competition especially in the pig market.

Medical Nutrition

Sales reached USD 815 million, up 15% in US dollars and 3% in local currencies.

Double digit growth in Europe lifted Medical Nutrition sales, which were driven by the strong performance of Enteral Nutrition (*Isosource* and *Novasource*) and additional sales impetus from the Medical Food franchise (*Resource*). In Nutrition & Santé, sales growth from the core brands offset the impact of distributor changes in China and Italy, while Sports Nutrition sales were lifted by the introduction of *Isostar* "Fast Hydration".

On December 16, 2003 the Business Unit announced its intention to buy the medical nutrition assets of Mead Johnson & Company, a Bristol-Myers Squibb Company subsidiary, for USD 385 million in cash. Successful completion of the transaction will offer Novartis Medical Nutrition a strong presence in the fast-growing US retail channel for medical nutrition products, expand its existing institutional medical nutrition business and enhance its access to the Japanese market. The acquisition will allow the Business Unit to further leverage its disease-specific brands consistent with its overall growth strategy.

Infant & Baby

Sales grew 2% (3% in local currencies) outpacing the industry growth leading to overall sales of USD 1.4 billion. The major contributor was Gerber in the US, spurred by innovations in the Juice, Graduates, and *Tender Harvest* lines and the outstanding success of the *Lil' Entrees* line of microwavable convenience trays targeted at the toddler segment.

CIBA Vision

Sales grew 15% in US dollars terms and rose 7% in local currencies to USD 1.3 billion, driven by the growth of *Focus DAILIES* and Focus *NIGHT & DAY* lenses which allowed the company to maintain leadership of the daily disposables and continuous wear categories. *Focus DAILIES Toric*, the world's first and only daily disposable lens for astigmatism correction, was launched also in the US and Japan following last year's introduction in Europe. *FreshLook* colored lenses remained the leading brand in the cosmetic lens segment, supported by the launch of *FreshLook Radiance* and *FreshLook Dimensions*. More emphasis was put on direct-to-consumer advertising with new successful TV and print campaigns for *Focus NIGHT & DAY* and *FreshLook*.

Despite competing in a shrinking market, sales of lens care products were flat versus the prior year, supported by the launch of *AOSEPT ClearCare* in US and *SOLO-Care AQUA* in selective European countries. Sales of *FreshLook Care* in Japan continued to grow.

The Ophthalmic surgical business contributed growing sales during the year. CIBA Vision is considering strategic alternatives for this business, including its potential sale.

Operating income

	Year ended December 31, 2003 USD millions	% of sales	Year ended December 31, 2002 USD millions	% of sales	Change %
Pharmaceuticals	**4 423**	**27.6**	**3 891**	**28.8**	**14**

	Year ended December 31, 2003 USD millions	% of sales	Year ended December 31, 2002 USD millions	% of sales	Change %
Sandoz	473	16.3	265	14.6	78
OTC	309	17.4	240	15.8	29
Animal Health	88	12.9	92	14.8	-4
Medical Nutrition	82	10.1	4	0.6	
Infant & Baby	254	18.7	227	17.0	12
CIBA Vision	153	11.7	118	10.4	30
Divisional Management	-39				
Consumer Health ongoing	**1 320**	**14.9**	**946**	**13.2**	**40**
Divested Health & Functional Food activities			140		
Consumer Health	**1 320**	**14.9**	**1 086**	**14.8**	**22**
Corporate income, net	146		115		27
Total	**5 889**	**23.7**	**5 092**	**24.4**	**16**

As planned, Research & Development expenses increased by a significant 32% to 15.1% of sales an increase of 1.5 percentage points of sales over the year. Thanks to continued productivity gains and product-mix improvements, the cost of goods sold and Marketing & Sales expenses grew slower than sales, offsetting an increase in General & Administration expenses, which grew owing to several factors including the impairment of tangible and intangible assets of USD 136 million and write-down of certain financial investments, including biotechnology ventures, of USD 80 million, exchange rate movements and royalty payments. Conversely General & Administration expenses were reduced by the release of USD 90 million of legal provisions as a result of a litigation settlement with GlaxoSmithKline. As a result, operating income rose 16% and the operating margin decreased 0.7 percentage points to 23.7% (2002: 24.4%).

Pharmaceuticals Division

Earnings growth accelerated in the year as sales continued to expand strongly. The cost of goods sold, as well as investments in Marketing & Sales slightly reduced as a percentage of the Division's sales compared to the prior year, Research & Development increased significantly as considerable payments related to development milestones and attractive in-licensing deals were completed. Product-mix changes and productivity gains in the cost of goods sold continued to drive gross profit improvements. Research & Development expenses reached 19.1% of Divisional sales (reflecting the sustained high-level investment in the new Cambridge facilities and in-licensing opportunities). General & Administration grew from 5.9% to 6.0% of Divisional sales owing to several factors including the write-down of certain financial investments in biotechnology ventures, exchange rate movements, royalty payments and increased product liability insurance costs. This was partially offset by one time gains on the sale of non-core products, primarily the *Fioricet and Fiorinal* lines for USD 178 million.

During 2003, the Pharmaceuticals Division completed a number of transactions to strengthen its product portfolio.

In April, the urinary incontinence treatment *Enablex* (darifenacin) was acquired from Pfizer for a total of up to USD 225 million, part of which is still conditional on certain marketing approvals in the US and EU. Also acquired during the year were the rights to the IL1-trap compound from Regeneron and rights to develop and market *Lucentis* outside North America was acquired from Genentech. These transactions resulted in

USD 151 million of milestone payments. In May, 51% of the capital stock of Idenix Pharmaceuticals Inc., Cambridge, Massachusetts was acquired for an initial payment of USD 255 million.

Consumer Health Division

Operating income from the ongoing business of Consumer Health rose 40% in the year, outpacing sales and driven in particular by Sandoz (+78%), where volume expansions and productivity gains more than offset increased investments in Marketing & Sales and Research & Development. Apart from Sandoz, CIBA Vision (+30%), Medical Nutrition and OTC (+29%), all achieved considerable increases in operating income, the latter benefiting from the exceptional contribution of loratadine.

Overall in Consumer Health, continued productivity gains, lower costs of certain raw materials, and product-mix improvements contributed to a reduction in the cost of goods sold as a percentage of sales. Marketing & Sales investments were maintained at a high level in order to drive recently launched products and to support key brands, however the increase was slower than sales growth. On the other hand, Research & Development investments increased overproportionally, which was mainly due to the expansion of internal Research & Development capabilities at Sandoz, licensing agreements and other initiatives to accelerate innovation. General & Administration costs increased mainly on account of the impairment of intangible assets of USD 72 million relating to Azupharma, Germany. The total increase was, however, slower than sales, owing to the release of USD 49 million of provisions following the successful conclusion of a litigation with GlaxoSmithKline. With almost all Business Units achieving margin improvements, the Division's ongoing profit margin improved 1.7 percentage points to 14.9%.

Sandoz

Operating income increased significantly by 78% over 2002, fueled by sales growth especially related to the acquisition of Lek, productivity gains and a stronger focus on higher margin products and favorable product mix. Research & Development investments increased 90% to USD 263 million due to product developments and the funding of Research & Development in the US. Total General & Administration expenses benefited from a release of USD 49 million of litigation provisions following the successful conclusion of negotiations with GlaxoSmithKline. The operating margin rose almost 1.7 percentage points to 16.3%.

OTC

Operating income increased 29% over the year to USD 309 million, as a result of top sales growth led by *Nicotinell/Habitrol* and the launch of loratadine private label in the US and the non-recurrence of exit costs from a Japanese joint venture. The operating margin increased 1.6 percentage points to 17.4%.

Animal Health

2003 operating income fell 4% to USD 88 million, leading to an operating margin of 12.9% (2002: 14.8%). Operating costs increased due to Marketing & Sales investments focused on recently launched products and due to additional Research & Development on essential project studies.

Medical Nutrition

Operating income increased to USD 82 million as a result of productivity gains, lower raw material costs and product mix improvements resulting from more focus on disease specific segments. The operating margin increased to 10.1% from 0.6% in 2002 or from 4.5% when USD 28 million of exceptional items related to restructuring the Business Unit and other one time items are excluded from the 2002 operating income.

Infant & Baby

2003 operating income rose 12% to USD 254 million. Operating margin increased to 18.7% from 17.0% in 2002, when there were USD 27 million of impairment charges.

CIBA Vision

Operating income reached USD 153 million, an increase of 30% over the year. This operational result was achieved due to the margin on the additional sales, reduction in structural costs, partially compensated by increased investment in advertising and promotion activities and a USD 22 million charge for asset impairments. Operating margin increased to 11.7% in 2003 compared with 10.4% in 2002.

Divested Health & Functional Food activities

The 2002 operating income of USD 140 million includes a divestment gain of USD 132 million, after related restructuring charges arising on the divestment of the Food & Beverage business. In addition there was a net USD 8 million operating income from these activities after taking into account USD 20 million of goodwill impairment charges.

Corporate Income/Expense, net

Net corporate income totaled USD 146 million, USD 31 million more than in the prior year. Higher income from charging share and share option plan costs to the operations and the settlement of a litigation for USD 41 million less than the provision more than offset increased investments in corporate research, the negative currency translation effects on non-US dollar costs, and lower pension income.

Operating expenses

	Year ended December 31, 2003 USD millions	Year ended December 31, 2002 USD millions	Change %
Sales	**24 864**	**20 877**	**19**
Cost of Goods Sold	-5 894	-4 994	18
Marketing & Sales	-7 854	-6 737	17
Research & Development	-3 756	-2 843	32
General & Administration	-1 471	-1 211	21
Operating income	**5 889**	**5 092**	**16**

Cost of Goods Sold

Cost of goods sold decreased as a percentage of sales from 23.9% in 2002 to 23.7% in 2003. This was mainly due to continued improvements in productivity and a favorable product mix in Pharmaceuticals.

Marketing & Sales

Marketing & Sales expenses as a percentage of sales decreased by 0.7% over 2002 to 31.6% of sales.

Research & Development

Research & Development expenses increased 32% owing to in-licencing deals in Pharmaceuticals and the build-up of the US research facility. As a percentage of sales Research & Development was 15.1% (2002: 13.6%).

General & Administration

General & Administration expenses increased to 5.9% of sales in 2003 from 5.8% in 2002 owing to several factors including the impairment of tangible and intangible assets of USD 136 million and write-down of certain financial investments, including biotechnology ventures, of USD 80 million, exchange rate movements and royalty payments. Conversely General & Administration expenses were reduced by the release of USD 90 million of legal provisions as a result of a litigation settlement with GlaxoSmithKline.

Net Income

	Year ended December 31, 2003 USD millions	Year ended December 31, 2002 USD millions	Change %
Operating income	**5 889**	**5 092**	**16**
Result from associated companies	-200	-7	
Financial income, net	379	613	-38
Income before taxes and minority interests	**6 068**	**5 698**	**6**
Taxes	-1 008	-959	5
Income before minority interests	**5 060**	**4 739**	**7**
Minority interests	-44	-14	
Net income	**5 016**	**4 725**	**6**

Result from associated companies

Associated companies are accounted for using the equity method where Novartis owns between 20% and 50% of the voting shares of such companies. Income from associated companies is mainly derived from the Group's investments in Roche Holding AG and Chiron Corporation.

The Group's 42% interest in Chiron contributed pre-tax income of USD 134 million (2002: USD 107 million). The Group's 33.3% (2002: 32.7%) interest in Roche voting shares, which represents a 6.3% (2002: 6.2%) interest in the total Roche equity instruments generated a pre-tax loss of USD 354 million (2002: USD 116 million loss), USD 269 million of which was due to Novartis' share in Roche's unexpected loss of CHF 4.0 billion in 2002, booked only in 2003. The remainder represents an estimate of Novartis' share (USD 185 million) in Roche's 2003 pre-tax income. This is reduced by a USD 270 million goodwill and intangible depreciation charge arising from allocating the purchase price to tangible and intangible assets and goodwill.

The Group's share of the net income of both Roche and Chiron is based upon analysts' estimates. Any differences between these estimates and actual results will be adjusted in 2004. In total, associated companies resulted in an overall expense of USD 200 million in 2003 (2002: USD 7 million).

Financial income, net

Amid persistently challenging market conditions, lower interest rates and a lower level of average net liquidity than in the prior year, net financial income declined 38% or USD 234 million.

Taxes

Despite increased profits, the tax charge of USD 1 008 million increased only USD 49 million over the year. The Group's effective tax rate (taxes as a percentage of income before tax) was 16.6% in 2003 compared to 16.8% in 2002.

The Group's expected tax rate (weighted average tax rate based on the result before tax of each subsidiary) was 14.8% in 2003 compared to 15.3% in 2002. The Group's effective tax rate is different to the expected tax rate due to the income statements effect of equity accounting for associated companies of 1.9% (2002: 0.3%) and various permanent tax adjustments to expenditures and income. For details of the main elements contributing to the difference, see note 6 to the consolidated financial statements.

Net income

Net income as a percentage of total sales decreased from 22.6% in 2002 to 20.2% in 2003 principally due to lower financial income and the negative impact of the result of associated companies.

Return on average equity decreased from 17.7% in 2002 to 17.1% in 2003.

Earnings per share

Earnings per share increased by 8%. This was more than the 6% increase in net income due to a lower average number of shares being outstanding during the year as a result of share buy-backs.

Condensed consolidated balance sheets

	December 31, 2003 USD millions	December 31, 2002 USD millions	Change USD millions
Total long-term assets	27 044	24 210	2 834
Cash, short-term deposits and marketable securities	13 259	12 542	717
Other current assets	9 014	8 273	741
Total assets	**49 317**	**45 025**	**4 292**
Total equity	30 429	28 269	2 160
Financial debts	5 970	5 570	400
Other liabilities and minority interests	12 918	11 186	1 732
Total equity and liabilities	**49 317**	**45 025**	**4 292**

Total long-term assets increased by USD 2.8 billion principally owing to translation effects. Following changes in US GAAP and expected changes in IFRS accounting rules, Novartis decided on June 26, 2003 to redeem, in advance, equity instruments (put and call options on Novartis shares) that were sold to Deutsche Bank in 2001. This resulted in an equity reduction of USD 3.5 billion.

The Group's equity increased USD 2.1 billion during 2003 to USD 30.4 billion at December 31, 2003, as a result of net income (USD 5.0 billion), translation gains (USD 2.4 billion), valuation differences on marketable securities and cash flow hedges and other items

(USD 0.2 billion), offset by the repayment of equity instruments (USD 3.5 billion), the acquisition of treasury shares (USD 0.3 billion) and the dividend payment (USD 1.7 billion). Total financial debts increased by USD 0.4 billion. The valuation differences on available-for-sale marketable securities and deferred cash flow hedges increased from unrealized losses of USD 0.2 billion at December 31, 2002 to unrealized gains of USD 81 million at December 31, 2003. The year-end debt/equity ratio remained at the 2002 level of 0.20:1.

Novartis has long-term financial debt principally in the form of bonds. USD 3.0 billion of straight bonds were outstanding at December 31, 2003 compared with USD 2.6 billion at December 31, 2002.

For details on the maturity profile of debt, currency and interest rate structure, see note 18 to the consolidated financial statements.

The Novartis debt continues to be rated by Standard & Poor's and Moody's as AAA and Aaa for long-term maturities and A1+ and P1 for short-term debt respectively. The Group considers its working capital to be sufficient for its present requirements.

Liquidity and capital resources

The following table sets forth certain information about the Group's cash flow and net liquidity for each of the periods indicated.

	2003 USD millions	2002 USD millions
Cash flow from operating activities	6 652	5 229
Cash flow used for investing activities	-1 298	-2 865
Cash flow used for financing activities	-5 764	-4 041
Translation effect on cash and cash equivalents	258	836
Change in cash and cash equivalents	**-152**	**-841**
Change in short- and long-term marketable securities	869	189
Change in short- and long-term financial debt	-400	-402
Change in net liquidity	**317**	**-1 054**
Net liquidity at January 1	6 972	8 026
Net liquidity at December 31	**7 289**	**6 972**

Cash flow from operating activities increased by USD 1.4 billion (27%) to USD 6.7 billion mainly as result of improved working capital management and higher net income. Depreciation, amortization and impairment charges increased by USD 50 million to USD 1.4 billion. Current tax payments were USD 49 million higher than prior year.

Cash outflow due to investing activities was USD 1.3 billion. USD 0.4 billion was spent to increase the strategic investment in Roche and for the acquisition of Idenix. The investment in tangible assets accounted for USD 1.3 billion. The net proceeds from sales of marketable securities was USD 0.4 billion.

The cash flow used for financing activities was USD 5.8 billion. USD 0.3 billion was spent on the acquisition of treasury shares, USD 1.7 billion on dividend payments and USD 3.5 billion on the repayment of equity instruments.

Overall liquidity (cash, cash equivalents and marketable securities including financial derivatives) amounted to USD 13.3 billion at December 31, 2003. Net liquidity (liquidity less financial debt) at year-end is USD 7.3 billion, USD 0.3 billion more than the December 31, 2002 level, despite the cash outflow due to the financing activities explained above.

Group free cash flow

The Group defines free cash flow as cash flow from operating activities less purchase/sale of tangible, intangible and financial assets and dividends paid. Cash effects on investment in/divestment of subsidiaries, associated companies and minority interests are excluded from free cash flow. The following is a summary of the Group's free cash flow:

	2003 USD millions	2002 USD millions
Cash flow from operating activities	**6 652**	**5 229**
Purchase of tangible fixed assets	-1 329	-1 068
Purchase of intangible assets	-214	-90
Purchase of financial assets	-816	-725
Proceeds from sale of tangible, intangible and financial assets	1 059	979
Dividends paid to third parties	-1 724	-1 367
Free cash flow	**3 628**	**2 958**

The free cash flow increased 23% from USD 3.0 billion in 2002 to USD 3.6 billion in 2003.

Group capital expenditure on tangible fixed assets for the 2003 financial year totaled USD 1.3 billion (5.3% of sales), compared to USD 1.1 billion (5.1% of sales) in 2002. This level of capital expenditure reflects the continuing investment in Production as well as Research & Development facilities. The Group expects to maintain spending at approximately the 2003 percentage of sales in 2004 and to fund these expenditures with internally generated resources.

Free cash flow is presented as additional information as it is a useful indicator of the Group's ability to operate without reliance on additional borrowing or usage of existing cash. Free cash flow is a measure of the net cash generated which is available for debt repayment and investment in strategic opportunities.

The Group uses free cash flow as a performance measure when making internal comparisons of Divisions' and Business Units' results. Free cash flow of the Divisions and Business Units uses the same definition as that for the Group, however no dividends, tax or financial receipts or payments are included in the Division and Business Unit calculation.

Free cash flow

	2003 USD millions	2002 USD millions
Pharmaceuticals	4 690	4 418
Sandoz	146	252
OTC	278	174
Animal Health	91	97
Medical Nutrition[(1)]	69	74
Infant & Baby	210	144
CIBA Vision	260	141
Consumer Health Division Management	-20	
Corporate and other	-2 096	-2 342
Total	**3 628**	**2 958**

(1) 2002 includes divested activities.

The following summarizes the Group's contractual obligations and other commercial commitments and the effect such obligations and commitments are expected to have on the Group's liquidity and cash flow in future periods.

		Payments due by period			
	Total USD millions	Less than 1 year USD millions	2 3 years USD millions	4 5 years USD millions	After 5 years USD millions
Long-term debt	3 236	45	1 855	1 297	39
Operating leases	928	211	291	156	270
Research & Development commitments	1 540	524	580	255	181
Total contractual cash obligations	**5 704**	**780**	**2 726**	**1 708**	**490**

The Group expects to fund the operating leases and long-term Research & Development commitments with internally generated resources.

Special purpose entities

The Novartis Group has no unconsolidated special purpose financing or partnership entities. See also note 27 of the consolidated financial statements for a description of the unconsolidated share compensation foundation.

Earnings before interest, tax, depreciation and amortization (EBITDA)

The Group defines EBITDA as operating income before depreciation of tangible fixed assets and amortization of intangible assets, including goodwill, and any related impairment charges.

	2003 USD millions	2002 USD millions
Operating income	**5 889**	**5 092**
Depreciation of tangible fixed assets	737	592
Amortization of intangible assets	410	355
Impairments of tangible and intangible assets	136	348
Group EBITDA	**7 172**	**6 387**

The breakdown of the Group EBITDA into Divisions/Business Units is as follows:

	EBITDA 2003 USD millions	% of sales	EBITDA 2002 USD millions	% of sales
Pharmaceuticals	5 072	31.7	4 705	34.8
Sandoz	787	27.1	413	22.7
OTC	350	19.8	273	17.9
Animal Health	117	17.2	117	18.8

	EBITDA 2003 USD millions	% of sales	EBITDA 2002 USD millions	% of sales
Medical Nutrition[1]	104	12.8	187	20.3
Infant & Baby	307	22.6	303	22.7
CIBA Vision	297	22.7	243	21.4
Consumer Health Division Management and other expenses	-39			
Total Divisions/Business Units	**6 995**	**28.1**	**6 241**	**29.9**
Corporate and other	177		146	
Total Group	**7 172**	**28.8**	**6 387**	**30.6**

(1) 2002 includes divested activities.

Enterprise value

Enterprise value represents the total amount that shareholders and debt holders have invested in Novartis, less the Group's liquidity. This is the base used by investors in Novartis to measure their EBITDA return.

	December 31, 2003 USD millions	December 31, 2002 USD millions
Market capitalization	110 865	88 952
Minority interests	90	66
Financial debts	5 970	5 570
Less liquidity	-13 259	-12 542
Enterprise value	**103 666**	**82 046**
Enterprise value/EBITDA	**14.5**	**12.8**

Value Added Statement

47.0% of the revenue from sales was used for purchasing goods and services from our suppliers. Of the Net Value Added of USD 13.7 billion, 47% was paid either directly or indirectly to the employees, 24% was retained in the business for future expansion and 17% was paid to public authorities and financial institutions. Dividends paid to the shareholders represented 12% of the Net Value Added.

Origin of value added

	2003 USD millions	2003 % of sales	2002 % of sales
Sales	**24 864**	**100**	**100**
Change in inventory and own manufactured items	384	1.5	
	25 248	101.5	100
Services bought from third parties:			
Material costs	-4 200	-16.0	-17.8
Other operating expenses	-7 497	-30.1	-26.5
Gross value added	**13 551**	**54.5**	**55.7**
Depreciation, amortization and impairments on tangible and intangible assets	-1 283	-5.1	-6.2
Financial income	1 473	5.9	10.3
Net Value Added (NVA)	**13 741**	**55.3**	**59.8**

Equity strategy and share information

Novartis share price increases by 11% in 2003

In 2003 the equity capital market recovered after a difficult 2002. The Swiss Market Index (SMI) increased 19% with the Morgan Stanley World Pharmaceutical Index increasing 14% over the year. The Novartis share price evolved broadly in line with its pharmaceutical industry peers and increased 11% from CHF 50.45 at the beginning of the year to CHF 56.15 on December 31, 2003. The market capitalization of Novartis amounted to USD 111 billion on December 31, 2003, compared to USD 89 billion at the end of 2002.

Dividend continuously increased since 1996

The Board is proposing to the Annual General Meeting to increase the dividend payment for 2003 by 5% to CHF 1.00 per share (2002: CHF 0.95) This represents the seventh consecutive increase in the dividend per share since the formation of Novartis in late 1996. If the 2003 dividend proposal is approved by the shareholders, dividends paid out on the outstanding shares will amount to USD 2.0 billion (2002: USD 1.7 billion), resulting in a pay-out ratio of 39% (2002: 36%). Based on the 2003 year-end share price of CHF 56.15, the Novartis dividend yield is 1.8% (2002: 1.9%). The dividend payment date for 2003 will be on February 27, 2004. With the exception of 275 million treasury shares, all issued shares are dividend bearing.

Third share repurchase program initiated

On July 22, 2002, Novartis initiated its third share buy-back program to repurchase shares on the SWX Swiss Exchange for up to a total of CHF 4 billion. During 2003, 24.3 million shares were repurchased via a second trading line for a total amount of USD 939 million and 17.1 million shares, net, were sold on the first trading line for a total of USD 666 million. In 2003 the Group's share capital was reduced by 22.7 million shares relating to shares bought on the second trading line in 2002. A proposal will be made to the Annual General Meeting to reduce the share capital by a further 24.3 million shares relating to the shares bought on the second trading line in 2003.

US dollar reporting

The Group changed the reporting currency of its consolidated financial statements from Swiss francs to US dollars from January 1, 2003 and restated prior year consolidated financial information into US dollars. At the same time the 2002 income statement classification was changed by transferring USD 336 million from Marketing & Sales to other expense categories (Cost of Goods Sold (USD 86 million) relating to certain

finished goods, warehousing and distribution expenses; Research & Development expenses (USD 55 million) relating to certain Phase IV clinical trials performed after launch of a new product; General & Administration expenses (USD 195 million) relating to certain third party royalty expenses on in-licensed products).

The move to presenting the consolidated financial data in US dollars reflects the increasing importance of the Novartis Group's sales in the US and makes the Group's financial information more easily comparable with peer companies in the pharmaceutical industry.

Information on Novartis shares

You can find further information on the Internet at **http://www.novartis.com/investors**.

Chart of Novartis 2003 share price movement

Key Novartis share data

	2003	2002
Issued shares	**2 801 470 000**	**2 824 150 000**
Of which treasury shares		
Reserved to secure conversion rights on bonds and call options		54 901 962
Not specifically reserved	333 701 340	294 277 419
Treasury shares	**333 701 340**	**349 179 381**
Outstanding shares at December 31	**2 467 768 660**	**2 474 970 619**
Average number of shares outstanding	**2 473 522 565**	**2 515 311 685**

Per share information[(1)]

(in USD except dividend which is in CHF)

	2003	2002
Basic earnings per share	2.03	1.88

	2003	2002
Diluted earnings per share	2.00	1.84
Operating cash flow	2.69	2.08
Year end equity	12.33	11.42
Dividend[2] (CHF)	1.00	0.95

(1) Calculated on average number of shares outstanding except year end equity per share.

(2) 2003: Proposal to shareholders' meeting.

Key ratios December 31

	2003	2002
Price/earnings ratio[1]	22.1	19.1
Enterprise value/EBITDA	14.5	12.8
Dividend yield (%)	1.8	1.9

(1) Based on share price at the year end.

Key data on ADSs issued under US American Depositary Receipts (ADR) program

	2003	2002
Year end ADS price (USD)	45.89	36.73
ADSs outstanding[1]	150 886 907	93 388 802

(1) The depositary, JP Morgan Chase Bank, holds one Novartis AG share for every American Depositary Share (ADS) issued.

Share price (CHF)

	2003	2002
Year end	56.15	50.45
Highest	56.15	69.10
Lowest	46.05	50.00
Year-end market capitalization (USD millions)	**110 865**	**88 952**

Trading

The Novartis shares are listed in Switzerland, and traded on virt-x, an Exchange for pan-European blue chip shares. The ADSs (American Depositary Shares) are listed on the New York Stock Exchange. The shares are also traded on the International Retail Service (IRS), of the London Stock Exchange.

Symbols

	virt-x (Reuters/Bloomberg)	IRS (Bloomberg)	NYSE (Reuters/Bloomberg)
Shares	NOVN.VX/NOVN VX	NOV LN	
ADSs			NVS

Widely dispersed shareholdings

Novartis shares are widely held. As of December 31, 2003, Novartis had approximately 174 000 shareholders (2002: 167 000) registered in its share register. Based on the Novartis AG share register approximately 62% (2002: 68%) of the Novartis AG shares which are registered by name are held in Switzerland and approximately 26% are held by approximately 1 100 holders in the USA (2002: 18% and 1 100 holders, respectively). 25% of the Novartis AG shares are not entered in the share register. Because certain of the shares are held by brokers or other nominees, the above numbers are not representative of the actual number of beneficial owners located in Switzerland or the US.

Limitation of registration, voting rights and major shareholders

No person or entity shall be registered with the right to vote for more than 2% of the share capital as set forth in the Commercial Register. The Board of Directors may allow exemptions from the limitation for registration in the share register.

Based upon information available to the Group, shareholders owning 2% or more of Novartis AG's capital at December 31 are listed in the table below:

	% holding of share capital December 31, 2003	% holding of share capital December 31, 2002
Novartis Foundation for Employee Participation, Basel	3.3	3.3
Emasan AG, Basel	3.1	3.1

Exchange rate exposure and risk management

Novartis transacts its business in many currencies other than the US dollar. As a result of the Group's foreign currency exposure, exchange rate fluctuations have a significant impact in the form of both translation risk and transaction risk on its income statement. Translation risk is the risk that the Group's consolidated financial statements for a particular period or as of a certain date may be affected by changes in the prevailing rates of the various currencies of the reporting subsidiaries against the US dollar. Transaction risk is the risk that the value of transactions executed in currencies other than the subsidiary's measurement currency may vary according to currency fluctuations.

Quantitative and qualitative disclosures about market risk

Growth and currency contributions

	Local currencies % 2003	Local currencies % 2002	USD % 2003	USD % 2002
Sales	11	11	19	11
Operating income	1	10	16	18
Net income	-8	15	6	23

Sales and operating costs by currencies

	Sales % 2003	Sales % 2002	Costs % 2003	Costs % 2002[1]
USD	43	43	41	41
EUR	26	25	23	22
CHF	4	5	17	22
JPY	8	8	4	4
Other	19	19	15	11

Liquid funds and financial debt by currencies

	Liquid funds % 2003	Liquid funds % 2002	Financial debt % 2003	Financial debt % 2002
USD	50	8	28	31
EUR	15	24	29	6
CHF	32	64	40	37
JPY	1	1		20
Other	2	3	3	6

(1) Restated to be comparable with 2003

On average in 2003, the US dollar was weaker against the Swiss franc, Japanese yen, Euro and British pound than in 2002. The total positive currency effect on sales growth was 8% and the total positive impact on operating income growth was 15%.

Market risk: Novartis is exposed to market risk, primarily related to foreign exchange, interest rates and the market value of the investments of liquid funds. Management actively monitors these exposures. To manage the volatility relating to these exposures, the Group enters into a variety of derivative financial instruments. The Group's objective is to reduce, where it deems appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates, foreign currency rates and market rates of investments of liquid funds. It is the Group's policy and practice to use derivative financial instruments to manage exposures and to enhance the yield on the investment of liquid funds. It does not enter any financial transactions containing a risk that cannot be quantified at the time the transaction is concluded. The Group only sells existing assets or enters into transactions and future transactions (in the case of anticipatory hedges) which it confidently expects it will have in the future, based on past experience. In the case of liquid funds, the Group writes call options on assets it has or it writes put options on positions it wants to acquire and has the liquidity to acquire. The Group expects that any loss in value for these instruments generally would be offset by increases in the value of the underlying transactions.

Foreign exchange rates: The Group uses the US dollar as its presentation currency and is therefore exposed to foreign exchange movements, primarily in European, Japanese and other Asian and Latin American currencies. Consequently, it enters into various contracts which change in value as foreign exchange rates change, to preserve the value of assets, commitments and anticipated transactions. It uses forward contracts and foreign currency option contracts to hedge certain anticipated net revenues in foreign currencies.

Net investments in foreign countries are long-term investments. Their fair value changes through movements of the currency exchange rates. In the very long term, however, the difference in the inflation rate should match the exchange rate movement, so that the market value of the real assets abroad will compensate for the change due to currency movements. For this reason, the Group only hedges the net investments in foreign subsidiaries in exceptional cases.

Commodities: The Group has only a very limited exposure to price risk related to anticipated purchases of certain commodities used as raw materials by its businesses. A change in those prices may alter the gross margin of a specific business, but generally by not more than 10% of the margin and thus below materiality levels. Accordingly, it does not enter into significant commodity futures, forward and option contracts to manage fluctuations in prices of anticipated purchases.

Interest rates: The Group manages its net exposure to interest rate risk through the proportion of fixed rate debt and variable rate debt in its total debt portfolio. To manage this mix, it may enter into interest rate swap agreements, in which it exchanges periodic payments based on a notional amount and agreed-upon fixed and variable interest rates.

Equity risk: The Group purchases equities as investments of its liquid funds. As a policy, it limits its holdings in an unrelated company to less than 5% of its liquid funds. Potential investments are thoroughly analyzed in respect to their past financial track record (mainly cash flow return on investment), their market potential, their management and their competitors. Call options are written on equities which the Group owns, and put options are written on equities which the Group wants to buy and for which cash has been reserved.

Management summary: Use of derivative financial instruments has not had a material impact on the Group's financial position at December 31, 2003 and 2002 or its results of operations for the years ended December 31, 2003 and 2002.

Value at risk: The Group uses a value at risk (VAR) computation to estimate the potential ten-day loss in the fair value of its interest rate sensitive financial instruments, the loss in pre-tax earnings of its foreign currency price-sensitive derivative financial instruments as well as the potential ten-day loss of its equity holdings. It uses a ten-day period because it is assumed that not all positions could be undone in a single day, given the size of the positions. The VAR computation includes the Group's debt, short-term and long-term investments, foreign currency forwards, swaps and options as well as anticipated transactions. Foreign currency trade payables and receivables as well as net investments in foreign subsidiaries are excluded from the computation.

The VAR estimates are made assuming normal market conditions, using a 95% confidence interval. The Group uses a "Delta Normal" model to determine the observed inter-relationships between movements in interest rates, stock markets and various currencies. These inter-relationships are determined by observing interest rate, stock market movements and forward currency rate movements over a 60-day period for the calculation of VAR amounts.

The estimated potential ten-day loss in fair value of the Group's interest rate sensitive instruments, primarily debt and investments of liquid funds under normal market conditions, the estimated potential ten-day loss in pre-tax earnings from foreign currency instruments under normal market conditions, and the estimated potential ten-day loss on its equity holdings, as calculated in the VAR model, follow:

	December 31, 2003 USD millions	December 31, 2002 USD millions
Instruments sensitive to foreign currency rates	244	128
Instruments sensitive to equity market movements	67	421
Instruments sensitive to interest rates	112	94
All instruments	356	509

The average, high, and low VAR amounts for 2003 are as follows:

	Average USD millions	High USD millions	Low USD millions
Instruments sensitive to foreign currency rates	184	307	74
Instruments sensitive to equity market movements	228	440	67
Instruments sensitive to interest rates	100	118	83
All instruments	404	489	302

The VAR computation is a risk analysis tool designed to statistically estimate the maximum probable ten-day loss from adverse movements in interest rates, foreign currency rates and equity prices under normal market conditions. The computation does not purport to represent actual losses in fair value on earnings to be incurred by the Group, nor does it consider the effect of favorable changes in market rates. The Group cannot predict actual future movements in such market rates and it does not claim that these VAR results are indicative of future movements in such market rates or to be representative of any actual impact that future changes in market rates may have on the Group's future results of operations or financial position.

In addition to these VAR analyses, the Group uses stress testing techniques which are aimed at reflecting a worst case scenario. For these calculations, the Group uses the worst movements during a period of six months over the past 20 years in each category. For 2003 and 2002, the worst case loss scenario was configured as follows:

	December 31, 2003 USD millions	December 31, 2002 USD millions
Bond portfolio	200	831
Money market and linked financial instruments	118	105
Equities	287	767
Foreign exchange risks	232	339
Total	**837**	**2 042**

In the Group's risk analysis, it considered this worst case scenario acceptable inasmuch as it could reduce the income, but would not endanger the solvency and/or the investment grade credit standing of the Group. While it is highly unlikely that all worst case fluctuations would happen simultaneously, as shown in the model, the actual market can of course produce bigger movements in the future than it has historically. Additionally, in such a worst case environment, management actions could further mitigate the Group's exposure.

The major financial risks facing the Group are managed centrally by Group Treasury. Only residual risks and some currency risks are managed in the subsidiaries. The collective amount of the residual risks is however below 10% of the global risks.

Novartis has a written Treasury Policy, has implemented a strict segregation of front office and back office controls and the Group does regular reconciliations of its positions with its counterparties. In addition, internal and external audits of the Treasury function are performed at regular intervals.

Summary of Quarterly Financial Data for 2003 and 2002

USD millions unless indicated otherwise	Q1	Q2	Q3	Q4	2003	Q1	Q2	Q3	Q4	2002
Income Statement										
Total sales	**5 721**	**6 203**	**6 210**	**6 730**	**24 864**	**4 742**	**5 193**	**5 373**	**5 569**	**20 877**
Cost of Goods Sold	-1 363	-1 423	-1 500	-1 608	-5 894	-1 199	-1 229	-1 306	-1 260	-4 994
Gross profit	**4 358**	**4 780**	**4 710**	**5 122**	**18 970**	**3 543**	**3 964**	**4 067**	**4 309**	**15 883**
Marketing & Sales	-1 833	-1 995	-1 850	-2 176	-7 854	-1 529	-1 755	-1 696	-1 757	-6 737
Research & Development	-843	-943	-878	-1 092	-3 756	-631	-672	-730	-810	-2 843
General & Administration	-331	-379	-513	-248	-1 471	-297	-205	-321	-388	-1 211
Operating income	**1 351**	**1 463**	**1 469**	**1 606**	**5 889**	**1 086**	**1 332**	**1 320**	**1 354**	**5 092**
Result from associated companies	-246	9	25	12	-200	-9	15	11	-24	-7
Financial income, net	180	119	96	-16	379	225	190	112	86	613
Income before taxes and minority interests	**1 285**	**1 591**	**1 590**	**1 602**	**6 068**	**1 302**	**1 537**	**1 443**	**1 416**	**5 698**
Taxes	-219	-270	-271	-248	-1 008	-237	-246	-245	-231	-959
Minority interests	-3	-5	-42	6	-44	-1	-5	-10	2	-14
Net income	**1 063**	**1 316**	**1 277**	**1 360**	**5 016**	**1 064**	**1 286**	**1 188**	**1 187**	**4 725**
EPS (USD)	0.43	0.53	0.52	0.55	2.03	0.42	0.50	0.48	0.48	1.88
Sales by Business Unit										
Pharmaceuticals	**3 609**	**3 991**	**4 041**	**4 379**	**16 020**	**3 068**	**3 377**	**3 451**	**3 632**	**13 528**
Sandoz	761	702	675	768	2 906	385	399	496	537	1 817
OTC	401	429	443	499	1 772	340	372	396	413	1 521
Animal Health	157	182	163	180	682	150	163	157	153	623
Medical Nutrition	190	211	206	208	815	163	189	185	174	711
Infant & Baby	307	357	349	348	1 361	323	345	335	330	1 333
CIBA Vision	296	331	333	348	1 308	255	295	297	288	1 135
Consumer Health (ongoing)	**2 112**	**2 212**	**2 169**	**2 351**	**8 844**	**1 616**	**1 763**	**1 866**	**1 895**	**7 140**
Divested Health & Functional Food activities						58	53	56	42	209
Total sales	**5 721**	**6 203**	**6 210**	**6 730**	**24 864**	**4 742**	**5 193**	**5 373**	**5 569**	**20 877**
Operating Income by Business Unit										
Pharmaceuticals	**1 100**	**1 012**	**1 137**	**1 174**	**4 423**	**861**	**1 003**	**986**	**1 041**	**3 891**
Sandoz	112	145	94	122	473	55	58	75	77	265
OTC	52	82	82	93	309	32	45	84	79	240
Animal Health	23	17	21	27	88	25	29	23	15	92
Medical Nutrition	20	16	18	28	82	6	10	3	(15)	4
Infant & Baby	45	73	70	66	254	59	61	63	44	227
CIBA Vision	29	60	48	16	153	23	39	37	19	118
Divisional Management costs	-4	-6	-7	-22	-39					

USD millions unless indicated otherwise	Q1	Q2	Q3	Q4	2003	Q1	Q2	Q3	Q4	2002
Consumer Health (ongoing)	**277**	**387**	**326**	**330**	**1 320**	**200**	**242**	**285**	**219**	**946**
Divested Health & Functional Food activities						8	8	8	116	140
Corporate income/expense, net	-26	64	6	102	146	17	79	41	-22	115
Total operating income	**1 351**	**1 463**	**1 469**	**1 606**	**5 889**	**1 086**	**1 332**	**1 320**	**1 354**	**5 092**

Summary of Financial Data 1997 2002 (since formation of Novartis)

USD millions unless indicated otherwise		2003	2002	2001	2000	1999	1998	1997
Novartis Group sales		**24 864**	**20 877**	**18 762**	**20 997**	**21 496**	**21 863**	**21 503**
Change relative to preceding year	%	19.1	11.3	-10.6	-2.3	-1.7	1.7	
Pharmaceuticals Division sales		16 020	13 528	11 965	10 744	10 157	10 000	9 732
Change relative to preceding year	%	18.4	13.1	11.4	5.8	1.6	2.8	
Consumer Health Division sales		8 844	7 349	6 797	6 242	6 621	6 706	6 644
Change relative to preceding year	%	20.3	8.1	8.9	-5.7	-1.3	0.9	
Novartis Group sales continuing activities		**24 864**	**20 877**	**18 762**	**16 986**	**16 778**	**16 706**	**16 376**
Change relative to preceding year	%	19.1	11.3	10.5	1.2	0.4	2.0	
Discontinued Agribusiness Division sales					4 011	4 718	5 157	5 127
Operating income		**5 889**	**5 092**	**4 325**	**4 684**	**4 868**	**4 772**	**4 612**
Change relative to preceding year	%	15.6	17.7	-7.7	-3.8	2.0	3.5	
As a % of sales	%	23.7	24.4	23.1	22.3	22.6	21.8	21.4
As a % of average equity	%	20.1	19.1	18.2	20.4	21.1	23.2	23.7
As a % of average net operating assets	%	26.4	26.4	28.1	32.1	31.8	33.5	31.0
Operating income (excluding discontinued Agribusiness Division)		**5 889**	**5 092**	**4 325**	**4 000**	**4 437**	**4 036**	**3 688**
Change relative to preceding year	%	15.7	17.7	8.1	-9.8	9.9	9.4	
As a % of sales excluding discontinued Agribusiness Division	%	23.7	24.4	23.1	23.5	26.4	24.2	22.5
Net income (including discontinued Agribusiness Division)		**5 016**	**4 725**	**3 836**	**3 822**	**4 401**	**4 145**	**3 592**
Change relative to preceding year	%	6.2	23.2	0.4	-13.2	6.2	15.4	
As a % of sales	%	20.2	22.6	20.4	18.2	20.5	19.0	16.7
As a % of average equity	%	17.1	17.7	16.1	16.7	19.1	20.2	18.5
Dividends of Novartis AG[1]		**1 974**	**1 724**	**1 367**	**1 268**	**1 259**	**1 215**	**1 130**
Cash flow from operating activities		**6 652**	**5 229**	**4 358**	**4 538**	**4 597**	**4 037**	**3 148**
Change relative to preceding year	%	27.2	20.0	-4.0	-1.3	13.9	28.2	
As a % of sales	%	26.8	25.0	23.2	21.6	21.4	18.5	14.6
Free cash flow		**3 628**	**2 958**	**2 453**	**2 678**	**2 350**	**1 809**	**844**
Change relative to preceding year	%	22.7	20.6	-8.4	13.9	29.9	114.3	
As a % of sales	%	14.6	14.2	13.1	12.8	10.9	8.3	3.9

USD millions unless indicated otherwise		2003	2002	2001	2000	1999	1998	1997
Investment in tangible fixed assets		**1 329**	**1 068**	**801**	**803**	**914**	**1 143**	**1 074**
Change relative to preceding year	%	24.4	33.3	-0.2	-12.1	-20.1	6.4	
As a % of sales	%	5.3	5.1	4.3	3.8	4.2	5.2	5.0
Depreciation of tangible fixed assets		**737**	**592**	**557**	**706**	**842**	**801**	**786**
As a % of sales	%	3.0	2.8	3.0	3.4	3.9	3.7	3.7
Research & development expenditure		**3 756**	**2 843**	**2 528**	**2 764**	**2 829**	**2 694**	**2 579**
As a % of sales	%	15.1	13.6	13.5	13.2	13.2	12.3	12.0
Pharmaceuticals research & development expenditure		**3 079**	**2 355**	**2 088**	**1 963**	**1 895**	**1 799**	**1 813**
As a % of Pharmaceuticals Division total sales	%	19.1	17.3	17.3	18.0	18.7	18.0	18.6
Total assets		**49 317**	**45 025**	**39 763**	**35 507**	**41 134**	**40 743**	**36 747**
Liquidity		13 259	12 542	13 194	12 659	14 187	14 259	12 662
Equity		30 429	28 269	25 161	22 492	23 363	22 751	18 357
Debt/equity ratio		0.20:1	0.20:1	0.21:1	0.16:1	0.27:1	0.28:1	0.41:1
Current ratio		2.4:1	2.5:1	2.4:1	2.8:1	2.0:1	2.0:1	2.0:1
Net operating assets		**23 230**	**21 363**	**17 197**	**13 634**	**15 543**	**15 091**	**13 375**
Change relative to preceding year	%	8.7	24.2	26.1	-12.3	3.0	12.8	
As a % of sales	%	93.4	102.3	91.7	64.9	72.3	69.0	62.2
Personnel costs		**6 252**	**5 128**	**4 362**	**4 635**	**4 789**	**4 892**	**5 033**
As a % of sales	%	25.1	24.6	23.2	22.1	22.3	22.4	23.4
Number of employees at year end	number	**78 541**	**72 877**	**71 116**	**67 653**	**81 854**	**82 449**	**87 239**
Sales per employee (average)	USD	318 041	282 041	266 809	252 879	260 684	254 715	242 003

(1) 2003: Proposal to the shareholder's meeting. Discloses in all years amounts paid to third party shareholders.

Novartis Group Consolidated Financial Statements

Consolidated Income Statements

for the years ended December 31, 2003 and 2002

	Notes	2003 USD millions	2002 USD millions
Sales	3/4	**24 864**	**20 877**
Cost of Goods Sold		-5 894	-4 994
Gross profit		**18 970**	**15 883**
Marketing & Sales		-7 854	-6 737
Research & Development		3 756	-2 843
General & Administration		-1 471	-1 211

	Notes	2003 USD millions	2002 USD millions
Operating income	3/4	**5 889**	**5 092**
Result from associated companies	10	-200	-7
Financial income, net	5	379	613
Income before taxes and minority interests		**6 068**	**5 698**
Taxes	6	-1 008	-959
Income before minority interests		**5 060**	**4 739**
Minority interests		-44	-14
Net income		**5 016**	**4 725**
Earnings per share (USD	7	2.03	1.88
Diluted earnings per share (USD	7	2.00	1.84

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Balance Sheets

at December 31, 2003 and 2002

	Notes	2003 USD millions	2002 USD millions
Assets			
Long-term assets			
Tangible fixed assets	8	7 597	6 321
Intangible assets	9	4 708	4 395
Investments in associated companies	10	6 848	6 483
Deferred taxes	11	2 401	2 178
Financial and other assets	12	5 490	4 833
Total long-term assets		**27 044**	**24 210**
Current assets			
Inventories	13	3 346	2 963
Trade accounts receivable	14	4 376	3 697
Other current assets	15	1 292	1 613
Marketable securities & financial derivatives	16	7 613	6 744
Cash and cash equivalents		5 646	5 798
Total current assets		**22 273**	**20 815**
Total assets		**49 317**	**45 025**
Equity and liabilities			

	Notes	2003 USD millions	2002 USD millions
Equity			
Share capital	17	1 017	1 025
Treasury shares	17	-121	-127
Reserves		29 533	27 371
Total equity		**30 429**	**28 269**
Minority interests		**90**	**66**
Liabilities			
Long-term liabilities			
Financial debts	18	3 191	2 729
Deferred taxes	11	3 138	2 821
Provisions and other long-term liabilities	19	3 149	2 868
Total long-term liabilities		**9 478**	**8 418**
Short-term liabilities			
Trade accounts payable		1 665	1 266
Financial debts	20	2 779	2 841
Other short-term liabilities	21	4 876	4 165
Total short-term liabilities		**9 320**	**8 272**
Total liabilities		**18 798**	**16 690**
Total equity, minority interests and liabilities		**49 317**	**45 025**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Cash Flow Statements

for the years ended December 31, 2003 and 2002

	Notes	2003 USD millions	2002 USD millions
Net income		**5 016**	**4 725**
Reversal of non-cash items			
Minority interests		44	14
Taxes		1 008	959
Depreciation, amortization and impairments on			
Tangible fixed assets		768	622
Intangible assets		515	673
Financial assets		103	41
Result from associated companies		200	7
Divestment gains			-133
Gains on disposal of tangible and intangible assets		-325	-260

	Notes	2003 USD millions	2002 USD millions
Net financial income		379	613
Dividends received		12	14
Interest and other financial receipts		501	435
Interest and other financial payments		-240	-174
Receipts from associated companies		62	44
Taxes paid		-842	-769
Cash flow before working capital and provision changes		**6 443**	**5 585**
Restructuring payments and other cash payments out of provisions		-248	-204
Change in net current assets and other operating cash flow items	22	457	-152
Cash flow from operating activities		**6 652**	**5 229**
Investment in tangible fixed assets		-1 329	-1 068
Proceeds from disposals of tangible fixed assets		92	183
Purchase of intangible assets		-214	-90
Proceeds from disposals of intangible assets		335	214
Purchase of financial assets		-816	-725
Proceeds from disposals of financial assets		632	582
Acquisition of additional interests in associated companies		-120	-1 846
Acquisition/divestment of subsidiaries	23	-272	-542
Acquisition of minorities		-10	-2
Proceeds from disposals of marketable securities		10 511	7 086
Payments for acquiring marketable securities		-10 107	-6 657
Cash flow used for investing activities		**-1 298**	**-2 865**
Acquisition of treasury shares		-273	-3 228
Increase in long-term financial debts		18	999
Repayment of long-term financial debts		-31	-18
Repayment of put and call options on Novartis shares		-3 458	
Change in short-term financial debts		-296	-427
Dividends paid		-1 724	-1 367
Cash flow used for financing activities		**-5 764**	**-4 041**
Net effect of currency translation on cash and cash equivalents		258	836
Net change in cash and cash equivalents		**-152**	**-841**
Cash and cash equivalents at the beginning of the year		**5 798**	**6 639**
Cash and cash equivalents at end of the year		**5 646**	**5 798**

The accompanying notes form an integral part of the consolidated financial statements.

Consolidated Statement of Changes in Equity

for the years ended December 31, 2003 and 2002

	Notes	Share premium USD millions	Retained earnings USD millions	Fair value adjustments on marketable	Fair value of deferred cash flow hedges	Cumulative translation differences	Total reserves USD	Share capital USD	Treasury shares USD	Total equity USD

			securities not recorded in net income USD millions	not recorded in net income USD millions	not recorded in net income USD millions	millions	millions	millions	millions
January 1, 2002		**2 565**	**25 642**	**656**	**-10**	**-4 617**	**24 236**	**1 047**	**-122**	**25 161**
Fair value adjustments on financial instruments	24a		98	-955	123		-734			-734
Associated companies' equity movements	24b		-74			-30	-104			-104
Recycled goodwill	24c		25				25			25
Translation effects						3 791	3 791			3 791
Net income			4 725				4 725			4 725
Total of components of comprehensive income			**4 774**	**-955**	**123**	**3 761**	**7 703**			**7 703**
Dividends	24d		-1 367				-1 367			-1 367
Acquisition of treasury shares	24e		-3 201				-3 201		-27	-3 228
Reduction in share capital	24f							-22	22	
Total of other equity movements			**-4 568**				**-4 568**	**-22**	**-5**	**-4 595**
December 31, 2002		**2 565**	**25 848**	**-299**	**113**	**-856**	**27 371**	**1 025**	**-127**	**28 269**
Fair value adjustments on financial instruments	24a			332	-106		226			226
Associated companies' equity movements	24b		-31	41			10			10
Translation effects						2 363	2 363			2 363
Net income			5 016				5 016			5 016
Total of components of comprehensive income			4 985	373	-106	2 363	7 615			7 615
Dividends	24d		-1 724				-1 724			-1 724
Acquisition of treasury shares	24e		-271				-271		-2	-273
Redemption of call options on Novartis shares	24g	-1 848	92			-435	-2 191			-2 191
Redemption of put options on Novartis shares	24h	-541	-603			-123	-1 267			-1 267
Reduction in share capital	24f							-8	8	
Total of other equity movements		**-2 389**	**-2 506**			**-558**	**-5 453**	**-8**	**6**	**-5 455**

	Notes	Share premium USD millions	Retained earnings USD millions	Fair value adjustments on marketable securities not recorded in net income USD millions	Fair value of deferred cash flow hedges not recorded in net income USD millions	Cumulative translation differences not recorded in net income USD millions	Total reserves USD millions	Share capital USD millions	Treasury shares USD millions	Total equity USD millions
December 31, 2003		**176**	**28 327**	**74**	**7**	**949**	**29 533**	**1 017**	**-121**	**30 429**

The accompanying notes form an integral part of the consolidated financial statements.

Notes to the Novartis Group Consolidated Financial Statements

1. Accounting policies

The Novartis Group (Group or Novartis) consolidated financial statements are prepared in accordance with the historical cost convention except for the revaluation to market value of certain financial assets and liabilities and comply with the International Financial Reporting Standards (IFRS) formulated by the International Accounting Standards Board (IASB) and with International Accounting Standards (IAS) and interpretations formulated by its predecessor organization the International Accounting Standards Committee (IASC), as well as with the following significant accounting policies.

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual outcomes could differ from those estimates.

Scope of consolidation: The financial statements include all companies which Novartis AG, Basel, directly or indirectly controls (generally over 50% of voting interest).

Special purpose entities, irrespective of their legal structure, are consolidated in instances where the Group has the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. As permitted by IFRS, equity compensation and post-employment plans are not consolidated.

Investments in associated companies (defined generally as investments of between 20% and 50% in a company's voting shares) and joint ventures are accounted for by using the equity method with the Group recording its share of the associated company's net income and equity.

Principles of consolidation: The annual closing date of the individual financial statements is December 31. The financial statements of consolidated companies operating in highly inflationary economies are adjusted to eliminate the impact of high inflation.

The purchase method of accounting is used for acquired businesses. Companies acquired or disposed of during the year are included in the consolidated financial statements from the date of acquisition or up to the date of disposal.

The Group was formed on December 20, 1996 when all assets and liabilities of Sandoz AG and Ciba-Geigy AG were transferred by universal succession to Novartis AG. The uniting of interests method was used for this transaction. The merger was consummated before the effective date of Interpretation 9 of the Standing Interpretations Committee on accounting for business combinations; if it were undertaken today, the merger might require a different accounting treatment.

Intercompany income and expenses, including unrealized gross profits from internal Novartis transactions and intercompany receivables and payables have been eliminated.

Reclassification: Certain prior year balances have been reclassified to conform with the current year presentation.

Revenue and expense recognition: Sales are recognized when the significant risks and rewards of ownership of the assets have been transferred to a third party and are reported net of sales taxes and rebates. Provisions for rebates to customers are recognized in the same period that the related sales are recorded, based on the contract terms and historical experience. Expenses for research and service contracts in progress are recognized based on their percentage of completion.

Foreign currencies: The consolidated financial statements of Novartis are expressed in US dollars ("USD"). The Novartis Group began presenting its results in US dollars with effect from January 1, 2003 and has restated its 2002 results in US dollars for comparison purposes. With effect from July 1, 2003, the measurement currency of certain Swiss and foreign finance companies used for preparing the financial statements has been changed to US dollars from the respective local currency. This reflects changes in these entities' cash flows and transactions now being primarily denominated in US dollars. Generally, the local currency is used as the measurement currency for other entities.

In the respective entity financial statements, monetary assets and liabilities denominated in foreign currencies are translated at the rate prevailing at the balance sheet date. Transactions are recorded using the approximate exchange rate at the time of the transaction. All resulting foreign exchange transaction gains and losses are recognized in the subsidiary's income statement.

Income, expense and cash flows of the consolidated companies have been translated into US dollars using average exchange rates. The balance sheets are translated using the year end exchange rates. Translation differences arising from movements in the exchange rates used to translate equity and long-term intercompany financing transactions and net income are allocated to reserves.

Derivative financial instruments and hedging: Derivative financial instruments are initially recognized in the balance sheet at cost and subsequently remeasured to their fair value. The method of recognizing the resulting gain or loss is dependent on whether the derivative contract is designed to hedge a specific risk and qualifies for hedge accounting. On the date a derivative contract is entered into, the Group designates derivatives which qualify as hedges for accounting purposes as either a) a hedge of the fair value of a recognized asset or liability (fair value hedge), or b) a hedge of a forecasted transaction or firm commitment (cash flow hedge) or c) a hedge of a net investment in a foreign entity.

Changes in the fair value of derivatives which are fair value hedges and that are highly effective are recognized in the income statement, along with any changes in the fair value of the hedged asset or liability that is attributable to the hedged risk. Changes in the fair value of derivatives in cash flow hedges are recognized in equity. Where the forecasted transaction or firm commitment results in the recognition of an asset or liability, the gains and losses previously included in equity are included in the initial measurement of the asset or liability. Otherwise, amounts recorded in equity are transferred to the income statement and classified as revenue or expense in the same period in which the forecasted transaction affects the income statement.

Hedges of net investments in foreign entities are accounted for similarly to cash flow hedges. The Group hedges certain net investments in foreign entities with foreign currency borrowings. All foreign exchange gains or losses arising on translation are recognized in equity and included in cumulative translation differences.

Certain derivative instruments, while providing effective economic hedges under the Group's policies, do not qualify for hedge accounting. Changes in the fair value of any derivative instruments that do not qualify for cash flow hedge accounting are recognized immediately in the income statement.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognized in the income statement, when the committed or forecasted transaction is ultimately recognized in the income statement. However, if a forecasted or committed transaction is no longer expected to occur, the cumulative gain or loss that was recognized in equity is immediately transferred to the income statement.

The purpose of hedge accounting is to match the impact of the hedged item and the hedging instrument in the income statement. To qualify for hedge accounting, the hedging relationship must meet several strict conditions with respect to documentation, probability of occurrence, hedge effectiveness and reliability of measurement. At the inception of the transaction the Group documents the relationship between hedging instruments and hedged items, as well as its risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives designated as hedges to specific assets and liabilities or to specific firm commitments or forecasted transactions.

The Group also documents its assessment, both at the hedge inception and on an ongoing basis, as to whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

Tangible fixed assets: Tangible fixed assets have been valued at cost of acquisition or production cost and are depreciated on a straight-line basis to the income statement, over the following estimated useful lives:

Buildings	20 to 40 years
Machinery and equipment	10 to 20 years
Furniture and vehicles	5 to 10 years
Computer hardware	3 to 7 years

Land is valued at acquisition cost except if held under long-term lease arrangements, when it is amortized over the life of the lease. Land held under long-term lease agreements relates to upfront payments to lease land on which certain of the Group's buildings are located. Additional costs which extend the useful life of tangible fixed assets are capitalized. Financing costs associated with the construction of tangible fixed assets are not capitalized. Tangible fixed assets which are financed by leases giving Novartis substantially all the risks and rewards of ownership are capitalized at the lower of the fair value of leased property and the present value of minimum lease payments at the inception of the lease, and depreciated in the same manner as other tangible fixed assets over the shorter of the lease term or their useful life.

Intangible assets: Intangible assets are valued at cost and reviewed periodically for any diminution in value. Any resulting impairment loss is recorded in the income statement in General & Administration expenses. In the case of business combinations, the excess of the purchase price over the fair value of net identifiable assets acquired is recorded as goodwill in the balance sheet. Goodwill, which is denominated in the local currency of the related acquisition, is amortized to income through General & Administration expenses on a straight-line basis over the asset's useful life. The amortization period is determined at the time of the acquisition, based upon the particular circumstances, and ranges from 5 to 20 years. Goodwill relating to acquisitions arising prior to January 1, 1995 has been fully written off against retained earnings.

Management determines the estimated useful life of goodwill arising from an acquisition based on its evaluation of the respective company at the time of the acquisition, considering factors such as existing market share, potential sales growth and other factors inherent in the acquired company.

Other acquired intangible assets are written off on a straight-line basis over the following periods:

Trademarks	10 to 15 years
Product and marketing rights	5 to 20 years
Software	3 years
Others	3 to 5 years

Trademarks are amortized on a straight-line basis over their estimated economic or legal life, whichever is shorter, while the practice of the Group has been to amortize product rights over estimated useful lives of 5 to 20 years. The useful lives assigned to acquired product rights are based on the maturity of the products and the estimated economic benefit that such product rights can provide. Marketing rights are amortized over their useful lives commencing in the year in which the rights first generate sales.

Long-lived tangible fixed assets and identifiable intangibles are reviewed for impairment whenever events or changes in circumstance indicate that the balance sheet carrying amount of the asset may not be recoverable. Goodwill is reviewed for impairment annually. When events or changes in circumstance indicate the asset may not be recoverable, the Group estimates its value in use based on the future cash flows expected to result from the use of the asset and its eventual disposition. If the balance sheet carrying amount of the asset is more than the higher of its value in use to Novartis or its anticipated net selling price, an impairment loss for the difference is recognized. For purposes of assessing impairment, assets are grouped at the lowest level for which there are separately identifiable cash flows. Considerable management judgment is necessary to estimate discounted future cash flows. Accordingly, actual outcomes could vary significantly from such estimates.

Financial assets: Minority investments other than associated companies and joint ventures are initially recorded at cost and subsequently carried at fair value and debt securities are carried at amortized cost. Exchange rate gains and losses on loans are recorded in the income statement. Originated loans are carried at amortized cost, less any allowances for uncollectable amounts. All other changes in the fair value of financial assets are deferred as a fair value adjustment to equity and recycled to the income statement when the asset is sold. Adjustments are made for other than temporary impairments in value.

Inventories: Purchased products are valued at acquisition cost while own-manufactured products are valued at manufacturing cost including related production expenses. In the balance sheet, inventory is primarily valued at standard cost, which approximates to historical cost determined on a first-in first-out basis, and this value is used for the cost of goods sold in the income statement. Provisions are made for

inventories with a lower market value or which are slow-moving. Unsaleable inventory is fully written off.

Trade accounts receivable: The reported values represent the invoiced amounts, less adjustments for doubtful receivables.

Cash and cash equivalents: Cash and cash equivalents include highly liquid investments with original maturities of three months or less. This position is readily convertible to known amounts of cash.

Marketable securities: Marketable securities consist of equity and debt securities which are traded in liquid markets. The Group has classified all its marketable securities as available-for-sale, as they are not acquired to generate profit from short-term fluctuations in price. All purchases and sales of marketable securities are recognized on the trade date, which is the date that the Group commits to purchase or sell the asset. Marketable securities are initially recorded at cost and subsequently carried at fair value. Exchange rate gains and losses on bonds are recorded in the income statement. All other changes in the fair value of unhedged securities are deferred as a fair value adjustment in equity and recycled to the income statement when the asset is sold or impaired. The change in fair value of effectively hedged securities is recorded in the income statement where it offsets the gains or losses of the hedging derivative.

Unrealized losses on marketable securities are included in Financial income, net in the income statement when there is objective evidence that the marketable securities are impaired. The Group's policy is to recognize impairments on available-for-sale securities when their fair value is 50% less than cost for a sustained period of 6 months.

Repurchase agreements: The underlying securities are included within marketable securities. The repurchase agreements for the securities sold and agreed to be repurchased under the agreement are recognized gross and included in short-term financial debts. Income and expenses are recorded in interest income and expense, respectively.

Taxes: Taxes on income are accrued in the same periods as the revenues and expenses to which they relate. Deferred taxes have been calculated using the comprehensive liability method. They are calculated on the temporary differences that arise between the tax base of an asset or liability and its carrying value in the balance sheet of Group companies prepared for consolidation purposes, except for those temporary differences related to investments in subsidiaries and associated companies, where the timing of their reversal can be controlled and it is probable that the difference will not reverse in the foreseeable future. Furthermore, withholding or other taxes on eventual distribution of retained earnings of Group companies are only taken into account where a dividend has been planned since generally the retained earnings are reinvested. Deferred tax assets or liabilities, calculated using applicable subsidiary tax rates, are included in the consolidated balance sheet as either a long-term asset or liability, with changes in the year recorded in the income statement. Deferred tax assets are fully recognized and reduced by a valuation allowance only if it is probable that a benefit will not be realized in the future.

Pension plans, post-employment benefits, other long-term employee benefits and employee share participation plans:

a) Defined benefit pension plans

The liability in respect to defined benefit pension plans is in all material cases the defined benefit obligation calculated annually by independent actuaries using the projected unit credit method. The defined benefit obligation is measured at the present value of the estimated future cash flows. The charge for such pension plans, representing the net periodic pension cost less employee contributions, is included in the personnel expenses of the various functions where the employees are located. Plan assets are recorded at their fair values. Significant gains or losses arising from experience adjustments, changes in actuarial assumptions, and amendments to pension plans are charged or credited to income over the service lives of the related employees. Any pension asset recognized in 2002 and 2003 does not exceed the present value of any future economic benefits available in the form of refunds from the plan and/or expected reductions in future contributions to the plan from this asset.

b) Post-employment benefits other than pensions

Certain subsidiaries provide healthcare and insurance benefits for a portion of their retired employees and their eligible dependents. The cost of these benefits is actuarially determined and included in the related function expenses over the employees' working lives. The related liability is included in long-term liabilities.

c) Other long-term employee benefits

Other long-term employee benefits represent amounts due to employees under deferred compensation arrangements mandated by certain jurisdictions in which the Group conducts its operations. Benefits cost is recognized on an accrual basis in the personnel expenses of the various functions where the employees are located. The related obligation is accrued in other long-term liabilities.

d) Employee share participation plan

No compensation cost is recognized in these financial statements for options or shares granted to employees from employee share participation plans.

Research and development: Research and development expenses are fully charged to the income statement. The Group considers that regulatory and other uncertainties inherent in the development of its key new products preclude it from capitalizing development costs. Acquired projects which have achieved technical feasibility, usually signified by US Food & Drug Administration or comparable regulatory body approval, are capitalized because it is probable that the costs will give rise to future economic benefits. Laboratory buildings and equipment included in tangible fixed assets are depreciated over their estimated useful lives.

Government grants: Government grants are deferred and recognized in the income statement over the period necessary to match them with the related costs which they are intended to compensate for.

Restructuring charges: Restructuring charges are accrued against operating income in the period in which management has committed to a plan and it is probable a liability has been incurred and the amount can be reasonably estimated. Restructuring charges or releases are included in General & Administration expenses. Releases of accrued amounts are recognized in the period in which it is decided that the amounts will not be required.

Environmental liabilities: Novartis is exposed to environmental liabilities relating to its past operations, principally in respect to remediation costs. Provisions for non-recurring remediation costs are made when expenditure on remedial work is probable and the cost can be estimated. Cost of future expenditures do not reflect any claims or recoveries. The Group records recoveries at such time the amount is reasonably estimable and collection is probable. With regard to recurring remediation costs, the discounted amount of such annual costs for the next 30 years are calculated and recorded in long-term liabilities.

Dividends: Dividends are recorded in the Group's financial statements in the period in which they are approved by the Group's shareholders.

Treasury shares: Treasury shares are deducted from equity at their nominal value of CHF 0.50 per share. Differences between this amount and the amount paid for acquiring, or received for disposing of, treasury shares are recorded in retained earnings.

2. Changes in the scope of consolidation

The following significant changes were made during 2003 and 2002:

Acquisitions 2003

Pharmaceuticals: On May 8, 2003 51% of the capital stock of Idenix Pharmaceuticals Inc., Cambridge, Massachusetts was acquired for an initial payment of USD 255 million in cash to its existing shareholders. As part of the acquisition, Novartis agreed to pay additional amounts to the shareholders of Idenix Pharmaceuticals Inc. based on the achievement of clinical and regulatory milestones, marketing approvals and sales targets. The total additional value of these milestone payments is up to USD 357 million. Novartis cannot estimate when or if these additional milestone payments will be made. In total the Group owns 54% of the capital stock of this company. This company, which expands the Group's presence in the infectious disease therapeutic area, is included in the consolidated financial statements from May 2003. Since net liabilities were also assumed, total goodwill amounted to USD 297 million on this transaction which is being amortized over 15 years.

Corporate: In 2003 the Group increased its investment in Roche Holding AG to 33.3% at December 31, 2003 from 32.7% at December 31, 2002 by acquiring further voting shares for USD 120 million. At December 31, 2003 the Group's holding represents approximately 6.3% of Roche Holding AG's total shares and equity instruments.

Acquisitions 2002

Sandoz: On November 29, 2002 the Business Unit acquired 99% of Lek d.d., Ljubljana, Slovenia for USD 0.9 billion in cash. The acquisition was accounted for under the purchase method of accounting. A provisional balance sheet at December 31, 2002 was consolidated, however due to its immateriality, no post-acquisition income statement or cash flow was consolidated in 2002. During 2003 all the outstanding minority interests were acquired. In 2003, the initial assessment of goodwill resulting from the 2002 acquisition of Lek d.d., was finalized upon completion of a third-party valuation. As a result, the total goodwill initially recorded in 2002 of USD 535 million was reduced by USD 425 million through an allocation to the identifiable net assets acquired. The remaining goodwill balance of USD 110 million is being amortized on a straight-line basis over 20 years.

Animal Health: In January 2002, the Business Unit completed the acquisition of two US farm animal vaccine companies, Grand Laboratories Inc., Iowa and ImmTech Biologies Inc., Kansas. The combined purchase price is a minimum of USD 99 million of which USD 78 million was settled in Novartis American Depositary Shares. The final price may increase depending on whether certain future sales and other targets are met. The acquisition was accounted for under the purchase method of accounting and the related goodwill was USD 83 million which is being amortized on a straight-line basis over 15 years.

Corporate: During 2002 the Group increased its investment in Roche Holding AG by USD 1.8 billion by acquiring a further 11.4% of this company's voting shares. In total 32.7% of the Roche Holding AG voting shares were held at December 31, 2002 which represented approximately 6.2% of Roche Holding AG's total shares and equity securities.

Divestments 2002

Consumer Health Division: On November 29, 2002 the Division divested its Food & Beverage (F&B) business to Associated British Foods plc (ABF), London, Great Britain, for a total of USD 270 million in cash. ABF acquired the F&B business and brand ownership worldwide (including the brands Ovaltine/Ovomaltine, Caotina and Lacovo) with the exception of the USA and Puerto Rico. The 2002 sales and operating income recorded by Novartis up to the November 29, 2002 divestment date amounted to USD 209 million and USD 8 million, respectively. This transaction produced a divestment gain of USD 132 million which was recorded as a reduction to General & Administration expenses.

3. Division and Business Unit breakdown of key figures 2003 and 2002

Operating Divisions: Novartis is divided operationally on a worldwide basis into two Divisions, Pharmaceuticals and Consumer Health. These Divisions, which are based on internal management structures, are best described as follows:

The Pharmaceuticals Division researches, develops, manufactures, distributes, and sells branded pharmaceuticals in the following therapeutic areas: cardiovascular, oncology and hematology; metabolism and endocrinology; central nervous system; dermatology; ophthalmics; respiratory; rheumatology; bone and hormone replacement therapy, transplantation and infectious diseases. The Pharmaceuticals Division is organized into five Business Units: Primary Care, Oncology, Transplantation, Mature Products and Ophthalmics, which due to the fact that they have common long-term economic perspectives, customers, research, development, production, distribution and regulatory environments are not required to be separately disclosed as segments.

The Consumer Health Division consists of the following six Business Units:

The Sandoz Business Unit manufactures, distributes and sells generic pharmaceutical products and substances no longer subject to patent protection.

The Over-The-Counter (OTC) Business Unit manufactures, distributes and sells a variety of over-the-counter self medications.

The Animal Health Business Unit manufactures, distributes and sells veterinary products for farm and companion animals.

The Medical Nutrition Business Unit manufactures, distributes and sells health and medical nutrition products.

The Infant & Baby Business Unit manufactures, distributes and sells foods and other products and services designed to serve the particular needs of infants and babies.

The CIBA Vision Business Unit manufactures, distributes and sells contact lenses, lens care products, and ophthalmic surgical products.

Corporate: Income and expenses relating to Corporate include the costs of the Group headquarters and those of corporate coordination functions in major countries. In addition, Corporate includes certain items of income and expense which are not directly attributable to specific Divisions. Usually, no allocation of Corporate items is made to the Divisions although there are charges made by Corporate for share and share option programs and certain pension plans.

The Group's Divisions are businesses that offer different products. These Divisions are managed separately because they manufacture, distribute, and sell distinct products which require differing technologies and marketing strategies.

Revenues on inter-Divisional and inter-Business Unit sales are determined on an arm's length basis. The accounting policies of the Divisions and Business Units described above are the same as those described in the summary of accounting policies except that they receive a Corporate charge for share and share option programs which have no net cost in the Group's IFRS consolidated financial statements. The Group principally evaluates Divisional and Business Unit performance and allocates resources based on operating income.

Division and Business Unit net operating assets consist primarily of tangible fixed assets, intangible assets, inventories and receivables less operating liabilities. Corporate assets and liabilities principally consist of net liquidity (cash, cash equivalents, marketable securities less financial debts), investments in associated companies and deferred and current taxes.

Division and Business Unit breakdown of key figures 2003 and 2002

					Consumer Health Division Business Units							
	Pharmaceuticals Division		Consumer Health Division		Sandoz		OTC		Animal Health		Medical Nutrition	
(in USD millions except employees)	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**
Sales to third parties	**16 020**	**13 528**	**8 844**	**7 349**	**2 906**	**1 817**	**1 772**	**1 521**	**682**	**623**	**815**	**711**
Sales to other Divisions/Business Units	133	111	98	104	139	130	14	12			1	8
Sales of Divisions/Business Units	**16 153**	**13 639**	**8 942**	**7 453**	**3 045**	**1 947**	**1 786**	**1 533**	**682**	**623**	**816**	**719**
Cost of Goods Sold	-2 360	-2 017	-3 768	-3 200								
Gross profit	13 793	11 622	5 174	4 253								
Marketing & Sales	-5 322	-4 574	-2 532	-2 163								
Research & Development	-3 079	-2 355	-529	-378								
General & Administration	-969	-802	-793	-626								
Operating income	**4 423**	**3 891**	**1 320**	**1 086**	**473**	**265**	**309**	**240**	**88**	**92**	**82**	**4**
Result from associated companies	136	109	3	1	3	1						
Financial income, net												
Income before taxes and minority interests												
Taxes												
Income before minority interests												
Minority interests												
Net income												

					Consumer Health Division Business Units							
Included in operating income are:												
Depreciation of tangible fixed assets	-424	-351	-285	-222	-143	-83	-23	-21	-10	-9	-12	-20
Amortization of intangible assets	-187	-184	-220	-165	-99	-51	-18	-12	-19	-16	-6	-5
Impairment charges on tangible and intangible assets	-38	-279	-98	-63	-72	-14					-4	
Restructuring charges				-58				-10				-28
Divestment gain on selling subsidiaries		1		132								
Royalties												
income	58	60	8	5	1	1	4	1				
expense	-256	-197	-20	-14	-8	-1	-6	-3	-1	-1		
Total assets	**13 836**	**11 942**	**9 689**	**8 419**	**4 321**	**3 329**	**1 032**	**902**	**660**	**603**	**468**	**385**
Liabilities	-4 867	-3 901	-2 962	-2 625	-950	-781	-434	-331	-154	-139	-211	-243
Total equity and minority interests	**8 969**	**8 041**	**6 727**	**5 794**	**3 371**	**2 548**	**598**	**571**	**506**	**464**	**257**	**142**
Less net liquidity												
Net operating assets	**8 969**	**8 041**	**6 727**	**5 794**	**3 371**	**2 548**	**598**	**571**	**506**	**464**	**257**	**142**
Included in total assets are:												
Total tangible fixed assets	4 828	3 984	2 434	1 877	1 532	990	161	169	79	71	98	93
Additions to tangible fixed assets	771	505	530	361	388	214	20	24	13	10	11	29
Additions to intangible assets	359	2	186	684	82	558	19	25	2	96	33	
Total investments in associated companies	1 120	1 000	23	18	23	18						
Employees at year end (unaudited)	**44 640**	**44 110**	**32 464**	**27 552**	**12 918**	**7 932**	**3 920**	**3 797**	**2 193**	**2 218**	**2 849**	**2 701**

Division and Business Unit breakdown of key figures 2003 and 2002

	Consumer Health Division Business Units											
	Infant & Baby		CIBA Vision		Divested Health & Functional Food activities	Divisional Management	Division eliminations		Corporate		TOTAL	
(in USD millions except employees)	**2003**	**2002**	**2003**	**2002**	**2002**	**2003**	**2003**	**2002**	**2003**	**2002**	**2003**	**2002**
Sales to third parties	**1 361**	**1 333**	**1 308**	**1 135**	**209**						**24 864**	**20 877**
Sales to other Divisions/Business Units			8	8			-64	-54	-231	-215		
Sales of Divisions/Business Units	**1 361**	**1 333**	**1 316**	**1 143**	**209**		**-64**	**-54**	**-231**	**-215**	**24 864**	**20 877**
Cost of Goods Sold							54	54	234	223	-5 894	-4 994
Gross profit							**-10**		**3**	**8**	**18 970**	**15 883**
Marketing & Sales											-7 854	-6 737
Research & Development									-148	-110	-3 756	-2 843
General & Administration									291	217	-1 471	-1 211
Operating income	**254**	**227**	**153**	**118**	**140**	**-29**	**-10**		**146**	**115**	**5 889**	**5 092**
Result from associated companies									-339	-117	-200	-7

	Consumer Health Division Business Units										
Financial income, net										379	613
Income before taxes and minority interests										**6 068**	**5 698**
Taxes										-1 008	-959
Income before minority interests										**5 060**	**4 739**
Minority interests										-44	-14
Net income										**5 016**	**4 725**
Included in operating income are:											
Depreciation of tangible fixed assets	-30	-24	-67	-65				-28	-19	-737	-592
Amortization of intangible assets	-23	-25	-55	-56				-3	-6	-410	-355
Impairment charges on tangible and intangible assets		-27	-22	-4	-18				-6	-136	-348
Restructuring charges					-20						-58
Divestment gain on selling subsidiaries					132						133
Royalties											
income			3	3						66	65
expense			-5	-9						-276	-211
Total assets	**1 684**	**1 620**	**1 573**	**1 626**			**-49**	**-46**	**25 792**	**24 664**	**49 317**	**45 025**
Liabilities	-880	-871	-340	-306		-32	39	46	-10 969	-10 164	-18 798	-16 690
Total equity and minority interests	**804**	**749**	**1 233**	**1 320**		**-32**	**-10**		**14 823**	**14 500**	**30 519**	**28 335**
Less net liquidity									-7 289	-6 972	-7 289	-6 972
Net operating assets	**804**	**749**	**1 233**	**1 320**		**-32**	**-10**		**7 534**	**7 528**	**23 230**	**21 363**
Included in total assets are:												
Total tangible fixed assets	242	233	322	321					335	460	7 597	6 321
Additions to tangible fixed assets	29	44	69	40					28	202	1 329	1 068
Additions to intangible assets	39	11	5							18	545	704
Total investments in associated companies									5 705	5 465	6 848	6 483
Employees at year end (unaudited)	**4 829**	**4 901**	**5 717**	**6 003**		**38**			**1 437**	**1 215**	**78 541**	**72 877**

4. Regional breakdown of key figures 2003 and 2002

(in USD millions except employees)	Europe	The Americas	Asia/Africa Australia	Total
2003				
Sales[1]	**8 788**	**12 036**	**4 040**	**24 864**
Operating income[2]	**4 505**	**897**	**487**	**5 889**

(in USD millions except employees)	Europe	The Americas	Asia/Africa Australia	Total
Depreciation of tangible fixed assets included in operating income	480	220	37	737
Net operating assets[3]	**16 271**	**5 984**	**975**	**23 230**
Additions to tangible fixed assets included in net operating assets	846	427	56	1 329
Additions to intangible assets	120	424	1	545
Personnel costs	3 002	2 759	491	6 252
Employees at year end[4]	**37 510**	**28 608**	**12 423**	**78 541**

	Europe	The Americas	Asia/Africa Australia	Total
2002				
Sales[1]	**6 832**	**10 558**	**3 487**	**20 877**
Operating income[2]	**3 825**	**958**	**309**	**5 092**
Depreciation of tangible fixed assets included in operating income	355	198	39	592
Net operating assets[3]	**14 086**	**6 312**	**965**	**21 363**
Additions to tangible fixed assets included in net operating assets	498	537	33	1 068
Additions to intangible assets	565	126	13	704
Personnel costs	2 279	2 408	441	5 128
Employees at year end[4]	**32 595**	**28 328**	**11 954**	**72 877**

The following countries accounted for more than 5% of at least one of the respective Group totals as at, or for the years ended, December 31, 2003 and 2002:

	Sales[1]				Investment in tangible fixed assets				Net operating assets[3]			
Country	**2003**	**%**	**2002**	**%**	**2003**	**%**	**2002**	**%**	**2003**	**%**	**2002**	**%**
Switzerland	319	1	317	2	177	13	124	12	10 631	46	9 238	43
USA	10 280	41	8 907	43	388	29	511	48	6 149	26	6 056	28
Japan	2 065	8	1 701	8	14	1	5		857	4	617	3
Germany	1 479	6	1 226	6	39	3	45	4	30		173	1
France	1 423	6	1 100	5	17	1	18	2	690	3	644	3
UK	789	3	680	3	194	15	79	7	1 008	4	863	4
Austria	252	1	212	1	170	13	131	12	946	4	613	3

	Sales[1]				Investment in tangible fixed assets				Net operating assets[3]			
Other	8 257	34	6 734	32	330	25	155	15	2 919	13	3 159	15
Total Group	**24 864**	**100**	**20 877**	**100**	**1 329**	**100**	**1 068**	**100**	**23 230**	**100**	**21 363**	**100**

(1) Sales by location of third party customer.

(2) Operating income as recorded in the legal entities in the respective region.

(3) Long-term and current assets (excluding marketable securities, cash and time deposits) less non-interest bearing liabilities.

(4) Unaudited.

No single customer accounts for 10% or more of the Group's total sales.

5. Financial income, net

	2003 USD millions	2002 USD millions
Interest income	323	416
Dividend income	17	68
Capital gains	11	
Income on options and forward contracts	1 113	1 659
Other financial income	9	3
Financial income	**1 473**	**2 146**
Interest expense	-243	-194
Capital losses		-79
Impairment of marketable securities	-66	
Expenses on options and forward contracts	-809	-1 261
Other financial expense	-40	-68
Financial expense	**-1 158**	**-1 602**
Currency result, net	**64**	**69**
Total financial income, net	**379**	**613**

2003 interest income includes a total of USD 9 million (2002: USD 19 million) received from the foundations referred to in note 27, at commercial interest rates on the outstanding short-term debt.

6. Taxes

Income before taxes and minority interests:

	2003 USD millions	2002 USD millions
Switzerland	2 809	2 491
Foreign	3 259	3 207
Total income before taxes and minority interests	**6 068**	**5 698**

Current and deferred income tax expense:

	2003 USD millions	2002 USD millions
Switzerland	-330	-273
Foreign	-765	-476
Total current income tax expense	**-1 095**	**-749**
Switzerland	-9	-46
Foreign	177	-152
Total deferred tax income/expense	**168**	**-198**
Share of tax of associated companies	**-81**	**-12**
Total income tax expense	**-1 008**	**-959**

The gross value of unused tax loss carryforwards which have, or have not, been capitalized as deferred tax assets, with their expiry dates is as follows:

	not capitalized USD millions	capitalized USD millions	2003 USD millions
One year	8	17	25
Two years	4	20	24
Three years	9	42	51
Four years	73	29	102
Five years	45	7	52
More than five years	881	109	990
Total	**1 020**	**224**	**1 244**

	not capitalized USD millions	capitalized USD millions	2002 USD millions
One year	15	16	31
Two years	2	6	8

	not capitalized USD millions	capitalized USD millions	2002 USD millions
Three years	6	6	12
Four years	11	3	14
Five years	149	49	198
More than five years	660	226	886
Total	**843**	**306**	**1 149**

Tax losses are capitalized if it is probable that future taxable profits will arise to utilize the losses.

USD 33 million of unused operating tax loss carryforwards expired during 2003 (2002: USD 2 million).

Analysis of tax rate: The main elements contributing to the difference between the Group's overall expected tax rate (the weighted average tax rate based on the income before tax of each subsidiary) and the effective tax rate are:

	2003 %	2002 %
Expected tax rate	14.8	15.3
Effect of taxes of associated companies	1.9	0.3
Effect of disallowed expenditures	2.3	2.4
Effect of utilization of tax losses brought forward from prior periods	-0.6	-0.5
Effect of income taxed at reduced rates	-2.0	-1.3
Effect of tax credits and allowances	-1.4	-1.0
Effect of write-off of deferred tax assets	0.5	0.6
Prior year and other items	1.1	1.0
Effective tax rate	**16.6**	**16.8**

The utilization of tax loss carryforwards lowered the tax charge by USD 34 million and USD 26 million in 2003 and 2002, respectively.

7. Earnings per share (EPS)

Basic earnings per share is calculated by dividing the net income attributable to shareholders by the weighted average number of shares outstanding during the year, excluding from the issued shares the average number of shares purchased by the Group and held as treasury shares.

	2003	2002
Net income (USD millions)	5 016	4 725
Weighted average number of shares outstanding	2 473 522 565	2 515 311 685
Basic earnings per share (USD)	**2.03**	**1.88**

For the diluted earnings per share the weighted average number of shares outstanding is adjusted to assume conversion of all potential dilutive shares. Until it matured in 2002, the Group's convertible debt represented a potential dilution in the earnings per share to the extent that it was not covered by a hedge with non-consolidated employee share participation and employee benefit foundations to deliver the required number of shares on conversion.

The diluted EPS calculation takes into account all potential dilutions to the earnings per share arising from the convertible debt and options on Novartis shares. Net income is adjusted to eliminate the applicable convertible debt interest expense less the tax effect. Share equivalents of 16.4 million (2002: 16.2 million) were excluded from the calculation of diluted earnings per share as they were anti-dilutive.

	2003	2002
Net income (USD millions)	5 016	4 725
Elimination of interest expense on convertible debt (net of tax effect)		2
Net income used to determine diluted earnings per share	5 016	4 727
Weighted average number of shares outstanding	2 473 522 565	2 515 311 685
Call options on Novartis shares	27 446 092	54 891 036
Adjustment for dilutive share options	4 346 940	2 264 236
Weighted average number of shares for diluted earnings per share	2 505 315 597	2 572 466 957
Diluted earnings per share (USD)	**2.00**	**1.84**

8. Tangible fixed asset movements

	Land USD millions	Buildings USD millions	Machinery USD millions	Plant under construction and other equipment USD millions	2003 USD millions	2002 USD millions
Cost						
January 1	**305**	**4 564**	**6 970**	**831**	**12 670**	**10 643**
Consolidation changes						342
Reclassifications[(1)]	16	-23	-232	2	-237	
Additions	26	285	617	401	1 329	1 068
Disposals	-12	-65	-200	-7	-284	-520
Translation effects	32	486	754	143	1 415	1 137
December 31	**367**	**5 247**	**7 909**	**1 370**	**14 893**	**12 670**
Accumulated depreciation						
January 1	**-1**	**-2 178**	**-4 170**		**-6 349**	**-5 247**
Consolidation changes						-237
Reclassifications[(1)]		54	280		334	
Depreciation charge		-172	-565		-737	-592
Depreciation on disposals		11	177		188	381
Impairment charge		-13	-18		-31	-30
Translation effects		-246	-455		-701	-624
December 31	**-1**	**-2 544**	**-4 751**		**-7 296**	**-6 349**
Net book value December 31	**366**	**2 703**	**3 158**	**1 370**	**7 597**	**6 321**

	Land USD millions	Buildings USD millions	Machinery USD millions	Plant under construction and other equipment USD millions	2003 USD millions	2002 USD millions
Insured value December 31					**17 439**	**15 337**
Net book value of tangible fixed assets under finance lease contracts					**135**	**151**

(1) Reclassifications between various asset categories as a result of recording final acquisition balance sheets.

At December 31, 2003 commitments for purchases of tangible fixed assets totaled USD 123 million (2002: USD 69 million).

9. Intangible asset movements

	Goodwill USD millions	Product and marketing rights USD millions	Trademarks USD millions	Software USD millions	Other intangibles USD millions	2003 USD millions	2002 USD millions
Cost							
January 1	**2 327**	**2 806**	**367**	**88**	**556**	**6 144**	**4 759**
Consolidation changes							354
Reclassifications(1)	-425	400		7	-3	-21	
Additions	303	75	67	25	75	545	704
Disposals	-254	-13	-1	-6	-42	-316	-28
Translation effects	146	310	8	8	29	501	355
December 31	**2 097**	**3 578**	**441**	**122**	**615**	**6 853**	**6 144**
Accumulated amortization							
January 1	**-623**	**-684**	**-115**	**-78**	**-249**	**-1 749**	**-859**
Consolidation changes							-139
Reclassifications(1)	2		-4	-6	6	-2	
Amortization charge	-102	-223	-31	-11	-43	-410	-355
Disposals	236	7		5	23	271	28
Impairment charge	-85	-3			-17	-105	-318
Translation effects	-48	-78	-3	-6	-15	-150	-106
December 31	**-620**	**-981**	**-153**	**-96**	**-295**	**-2 145**	**-1 749**
Net book value December 31	**1 477**	**2 597**	**288**	**26**	**320**	**4 708**	**4 395**

(1) Reclassifications between various asset categories as a result of recording final acquisition balance sheets.

In 2003 impairment charges of USD 105 million were recorded, principally relating to the over valuation on an economic basis of the Sandoz activities in Germany; the divestment of Genetic Therapy Inc., US, a Pharmaceuticals Division research activity, to Cell Genesys Inc., US, and

adjustments to CIBA Vision Business Unit intangibles.

In 2002, impairment charges were recorded of USD 318 million, of which USD 238 million was for goodwill mainly relating to the Pharmaceutical Division research and biotechnology activities of Genetic Therapy Inc., Systemix Inc., Imutran Ltd., due to changes in the research and development strategy and also relating to the Medical Nutrition and OTC Business Units. There was also an impairment charge of USD 52 million on the pitavastatin rights and USD 28 million of other impairments.

10. Investments in associated companies

Novartis has the following significant investments in associated companies which are accounted for by using the equity method:

	Balance sheet value		Pre-tax income statement effect	
	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Roche Holding AG, Switzerland	5 662	5 462	-354	-116
Chiron Corporation, USA	1 118	996	134	107
Others	68	25	20	2
Total	**6 848**	**6 483**	**-200**	**-7**

The accounting standards of the Group's associated companies are adjusted to IFRS in cases where IFRS is not already used.

Due to the various estimates that have been made in applying the equity method accounting treatment for Roche Holding AG ("Roche") and Chiron Corporation ("Chiron"), adjustments may be necessary in succeeding years as more financial and other information becomes publicly available.

Roche Holding AG: The Group's holding in Roche voting shares has been increased during 2003 from 32.7% at December 31, 2002 to 33.3% at December 31, 2003. This investment represents 6.3% of the total outstanding voting and non-voting equity instruments. In order to apply the equity method of accounting, independent appraisers have been used to estimate the fair value of Roche so as to determine the Novartis share of tangible and intangible assets and the amount of the residual goodwill at the time of acquisition. The purchase price allocations were made on publicly available information at the time of acquisition of the shares.

The purchase price allocation is as follows:

	USD millions
Identified intangible assets	3 776
Other net assets	58
Residual goodwill	2 733
Total purchase price	**6 567**
Net income effect 2003	-398
Other accumulated equity adjustments	-507
December 31, balance sheet value	**5 662**

The purchase price allocated to inventory has been expensed, based on its expected usage. The identified intangible assets principally relate to the value of currently marketed products and are being amortized straight-line over their estimated average useful life of 20 years. The residual goodwill is also being amortized on a straight-line basis over 20 years.

The income statement effect for 2003 and 2002 is as follows:

	2003 USD millions	2002 USD millions
Depreciation and amortization of fair value adjustments to		
tangible and intangible assets	-143	-129
goodwill	-127	-91
Prior year adjustment	-269	-17
Novartis share of estimated Roche current year consolidated pre-tax income	185	121
Pre-tax income statement effect	**-354**	**-116**
Deferred tax	-44	23
Net income effect	**-398**	**-93**

The prior year adjustment in 2003 relates to the Novartis share of an unexpected Roche loss in 2002, announced by Roche after the publication of the Novartis 2002 Annual Report.

The market value of the Novartis interest in Roche at December 31, 2003 was USD 7.3 billion (Reuters symbol: RO.S).

Chiron Corporation: The recording of the results of the strategic interest in Chiron is based on the estimated Chiron equity at December 31 of each year. The amounts for Chiron incorporated into the Novartis consolidated financial statements take into account the effects stemming from differences in accounting policies between Novartis and Chiron (primarily Novartis' amortization over 10 years of in-process research and development arising on Chiron's acquisitions which are written off by Chiron in the year of acquisition). The effective shareholding of Novartis in Chiron was 42.3% at December 31, 2003 and had a market value of USD 4.5 billion (NASDAQ symbol: CHIR).

11. Deferred taxes

		2003 USD millions	2002 USD millions
Assets associated with	employee benefit liabilities	481	281
	net operating loss carryforwards	222	216
	inventories	957	920
	intangible assets	60	57
	other provisions and accruals	867	849
Less: valuation allowance		-186	-145
Deferred tax assets less valuation allowance		**2 401**	**2 178**
Liabilities associated with	tangible fixed asset depreciation	644	567
	prepaid pensions	983	899
	other provisions and accruals	1 306	1 150
	inventories	205	205
Total liabilities		**3 138**	**2 821**

	2003 USD millions	2002 USD millions
Net deferred tax liability	**737**	**643**

A reversal of the valuation allowance could occur when circumstances make the realization of deferred tax assets probable. This would result in a decrease in the Group's effective tax rate.

At December 31, 2003 unremitted earnings of USD 27 billion (2002: USD 25 billion) have been retained by subsidiary companies for reinvestment. No provision is made for income taxes that would be payable upon the distribution of such earnings. If the earnings were remitted, an income tax charge could result based on the tax statutes currently in effect.

	2003 USD millions	2002 USD millions
Temporary differences on which no deferred tax has been provided as they are permanent in nature:		
write-down of investments in subsidiaries	775	1 437
goodwill from acquisitions	995	1 422

12. Financial and other assets

	2003 USD millions	2002 USD millions
Other investments and long-term loans	1 514	1 306
Prepaid pension	3 976	3 527
Total	**5 490**	**4 833**

Other investments are valued at market value.

During 2003, USD 80 million (2002: USD 64 million) of unrealized losses on investments were considered to be other than temporary and were charged to the income statement.

13. Inventories

	2003 USD millions	2002 USD millions
Raw material, consumables	531	498
Finished products	2 815	2 465
Total inventories	**3 346**	**2 963**

At December 31, 2003 and 2002, inventory write-downs of USD 238 million and USD 252 million respectively were deducted in arriving at the inventory values.

14. Trade accounts receivable

	2003 USD millions	2002 USD millions
Total	4 603	3 915
Provision for doubtful receivables	-227	-218
Total trade accounts receivable, net	**4 376**	**3 697**

15. Other current assets

		2003 USD millions	2002 USD millions
Withholding tax recoverable		257	150
Gerber Life insurance receivables		149	207
Prepaid expenses	third parties	183	327
	associated companies	5	1
Other receivables	third party	688	921
	associated companies	10	7
Total other current assets		**1 292**	**1 613**

16. Marketable securities and derivative financial instruments

Market risk

The Group is exposed to market risk, primarily related to foreign exchange, interest rates and market value of the investment of liquid funds. Management actively monitors these exposures. To manage the volatility relating to these exposures the Group enters into a variety of derivative financial instruments. The Group's objective is to reduce, where it is deemed appropriate to do so, fluctuations in earnings and cash flows associated with changes in interest rates, foreign currency rates and market rates of investment of liquid funds and of the currency exposure of certain net investments in foreign subsidiaries. It is the Group's policy and practice to use derivative financial instruments to manage exposures and to enhance the yield on the investment of liquid funds. The Group does not enter any financial transaction containing a risk that cannot be quantified at the time the transaction is concluded; i.e. it does not sell short assets it does not have, or does not know it will have, in the future. The Group only sells existing assets or hedges transactions and future transactions (in the case of anticipatory hedges) it knows it will have in the future based on past experience. In the case of liquid funds it writes options on assets it has, or on positions it wants to acquire, and for which it has the required liquidity. The Group therefore expects that any loss in value for these instruments generally would be offset by increases in the value of the hedged transactions.

a) Foreign exchange rates: The Group uses the US dollar as its reporting currency and is therefore exposed to foreign exchange movements, primarily in European, Japanese, other Asian and Latin American currencies. Consequently, it enters into various contracts which change in value as foreign exchange rates change, to preserve the value of assets, commitments and anticipated transactions. The Group uses forward contracts and foreign currency option contracts to hedge certain anticipated foreign currency revenues and the net investment in certain foreign subsidiaries.

b) Commodities: The Group has only a very limited exposure to price risk related to anticipated purchases of certain commodities used as raw materials by the Group's businesses. A change in those prices may alter the gross margin of a specific business, but generally by not more than 10% of that margin and is thus within the Group's risk management tolerance level. Accordingly, the Group does not enter into commodity future, forward and option contracts to manage fluctuations in prices of anticipated purchases.

c) Interest rates: The Group manages its exposure to interest rate risk by changing the proportion of fixed rate debt and variable rate debt in its total debt portfolio. To manage this mix the Group may enter into interest rate swap agreements, in which it exchanges the periodic payments, based on a notional amount and agreed upon fixed and variable interest rates. Use of the above-mentioned derivative financial instruments has not had a material impact on the Group's financial position at December 31, 2003 and 2002 or the Group's results of operations for the years ended December 31, 2003 and 2002.

Counterparty risk

Counterparty risk encompasses issuer risk on marketable securities, settlement risk on derivative and money market contracts and credit risk on cash and time deposits. Issuer risk is minimized by only buying securities which are at least AA rated. Settlement and credit risk is reduced by the policy of entering into transactions with counterparties that are usually at least AA rated banks or financial institutions. Exposure to these risks is closely monitored and kept within predetermined parameters.

The Group does not expect any losses from non-performance by these counterparties and does not have any significant grouping of exposures to financial sector or country risk.

Derivative financial instruments

The following tables show the contract or underlying principal amounts and fair values of derivative financial instruments analyzed by type of contract at December 31, 2003 and 2002. Contract or underlying principal amounts indicate the volume of business outstanding at the balance sheet date and do not represent amounts at risk. The fair values are determined by the markets or standard pricing models at December 31, 2003 and 2002.

	Contract or underlying principal amount		Positive fair values		Negative fair values	
	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Currency related instruments						
Forward foreign exchange rate contracts	5 470	6 184	360	217	-398	-171
Over the counter currency options	4 016	6 561	34	28	-29	-130
Cross currency swaps	1 123	1 973	223	30		
Total of currency related instruments	**10 609**	**14 718**	**617**	**275**	**-427**	**-301**
Interest rate related instruments						
Interest rate swaps	3 826	2 986	12	50	-10	-1
Forward rate agreements	6 194	2 743	2		-3	-7
Interest rate options	520	677		1	-1	-5
Total of interest rate related instruments	**10 540**	**6 406**	**14**	**51**	**-14**	**-13**
Options on equity securities	**1 242**	**2 084**	**68**	**106**	**-58**	**-96**
Total derivative financial instruments included in marketable securities and in short-term financial debt	**22 391**	**23 208**	**699**	**432**	**-499**	**-410**

	Contract or underlying principal amount		Positive fair values		Negative fair values	
Currency related instruments included in other current assets and liabilities						
Forward foreign exchange rate contracts	1 946	2 399	23	141	-34	
Over the counter currency options	2	1 192		7		-1
Total currency related instruments included in other current assets and liabilities	**1 948**	**3 591**	**23**	**148**	**-34**	**-1**
Total derivative financial instruments	**24 339**	**26 799**	**722**	**580**	**-533**	**-411**

The contract or underlying principal amount of derivative financial instruments at December 31, 2003 and 2002 are set forth by currency in the table below.

	CHF USD millions	EUR USD millions	USD USD millions	JPY USD millions	Other currencies USD millions	Total 2003 USD millions	Total 2002 USD millions
Currency related instruments							
Forward foreign exchange rate contracts	41	3 207	2 885	930	353	7 416	8 583
Over the counter currency options		1 871	1 335	280	532	4 018	7 753
Cross currency swaps		1 123				1 123	1 973
Currency related derivatives	**41**	**6 201**	**4 220**	**1 210**	**885**	**12 557**	**18 309**
Interest rate related instruments							
Interest rate swaps	1 080	1 746	1 000			3 826	2 986
Forward rate agreements		2 994	3 200			6 194	2 743
Interest rate options	120		400			520	677
Interest rate related derivatives	**1 200**	**4 740**	**4 600**			**10 540**	**6 406**
Options on equity securities		**411**	**639**	**144**	**48**	**1 242**	**2 084**
Total derivative financial instruments	**1 241**	**11 352**	**9 459**	**1 354**	**933**	**24 339**	**26 799**

Derivative financial instruments effective for hedge accounting purposes

	Contract or underlying principal amount	Fair values

	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Anticipated transaction cash flow hedges				
Forward foreign exchange rate contracts	3 167	2 982	25	159
Over the counter currency options	2	1 193		7
Total of derivative financial instruments effective for hedge accounting purposes	**3 169**	**4 175**	**25**	**166**

All of the hedging instruments used for anticipated transactions mature within twelve months and were contracted with the intention of hedging anticipated transactions which are expected to occur in 2004.

Marketable securities, time deposits and derivative financial instruments

	2003 USD millions	2002 USD millions
Available-for-sale marketable securities		
Equity securities	1 277	1 256
Debt securities	4 857	4 240
Total available-for-sale marketable securities	**6 134**	**5 496**
Time deposits longer than 90 days	651	767
Derivative financial instruments	699	353
Accrued interest on derivative financial instruments	42	38
Accrued interest on debt securities	87	90
Total marketable securities, time deposits and derivative financial instruments	**7 613**	**6 744**

During 2003, unrealized losses of USD 66 million on available-for-sale marketable securities were considered to be other than temporary and charged to the income statement (2002: nil).

17. Details of shares and share capital movements

	Number of outstanding shares[1]				
	December 31, 2001	Movement in year	December 31, 2002	Movement in year	December 31, 2003
Total Novartis shares	**2 885 204 680**	**-61 054 680**	**2 824 150 000**	**-22 680 000**	**2 801 470 000**
Treasury shares					
Shares reserved for convertible bonds	4 503 754	-4 503 754			
Shares reserved for call options	54 901 962		54 901 962	-54 901 962	
Unreserved treasury shares	277 618 704	16 658 715	294 277 419	39 423 921	333 701 340

	Number of outstanding shares[1]				
Total treasury shares	**337 024 420**	**12 154 961**	**349 179 381**	**-15 478 041**	**333 701 340**
Total outstanding shares	**2 548 180 260**	**-73 209 641**	**2 474 970 619**	**-7 201 959**	**2 467 768 660**
	USD millions	**USD millions**	**USD millions**	**USD millions**	**USD millions**
Share capital	1 047	-22	1 025	-8	1 017
Treasury shares	-122	-5	-127	6	-121
Outstanding share capital	**925**	**-27**	**898**	**-2**	**896**

(1) All shares are registered, authorized, issued and fully paid. All are voting shares and, except for 274 764 019 treasury shares, are dividend bearing.

18. Long-term financial debts

	2003 USD millions	2002 USD millions
Straight bonds	2 972	2 577
Liabilities to banks and other financial institutions[1]	142	119
Finance lease obligations	122	144
Total (including current portion of long-term debt)	**3 236**	**2 840**
Less current portion of long-term debt	-45	-111
Total long-term debts	**3 191**	**2 729**

Straight bonds

USD	6.625% Euro Medium Term Note 1995/2005 of Novartis Corporation, Florham Park, New Jersey, US	300	300
USD	6.625% Euro Medium Term Note 1995/2005 of Novartis Corporation, Florham Park, New Jersey, US	250	250
USD	9.0% bonds 2006 of Gerber Products Company, Fremont, Michigan, US	35	36
EUR	EUR 900 million 4.0% bond 2001/2006 of Novartis Securities Investment Ltd., Hamilton, Bermuda[2]	1 127	939
EUR	EUR 1 billion 3.75% bond 2002/2007 of Novartis Securities Investment Ltd., Hamilton, Bermuda	1 260	1 052
Total straight bonds		**2 972**	**2 577**

(1)

Average interest rate 3.4%. (2002: 3.4%).

(2) Swapped into Japanese yen on inception and transformed into Swiss francs in 2002.

		2003 USD millions	2002 USD millions
Breakdown by maturity	2003		111
	2004	45	35
	2005	677	615
	2006	1 178	986
	2007	1 274	1 061
	2008	23	
	Thereafter	39	32
Total		**3 236**	**2 840**
Breakdown by currency	USD	719	743
	EUR	1 382	97
	JPY		1 052
	CHF	1 127	939
	Others	8	9
Total		**3 236**	**2 840**

Fair value comparison	2003 Balance sheet USD millions	2003 Fair values USD millions	2002 Balance sheet USD millions	2002 Fair values USD millions
Straight bonds	2 972	3 057	2 577	2 672
Others	264	264	263	263
Total	**3 236**	**3 321**	**2 840**	**2 935**

Collateralized long-term debts and pledged assets	2003 USD millions	2002 USD millions
Total amount of collateralized long-term financial debts	50	67
Total net book value of tangible fixed assets pledged as collateral for long-term financial debts	101	118

The percentage of fixed rate debt to total financial debt was 51% and 46% at December 31, 2003 and 2002, respectively.

The financial debts, including short-term financial debts, contain only general default covenants. The Group is in compliance with these covenants.

19. Provisions and other long-term liabilities

	2003 USD millions	2002 USD millions
Employee benefits		
unfunded defined benefit plans	930	741
other long-term employee benefits and deferred compensation	183	180
Other post-employment benefits	460	421
Liabilities for insurance activities	766	646
Environmental provisions	177	161
Provision for legal and product liability settlements	335	254
Deferred purchase consideration	4	9
Restructuring provision		3
Other provisions	294	453
Total	**3 149**	**2 868**

a) Environmental matters:

Novartis has provisions in respect of environmental remediation costs in accordance with the accounting policy described in Note 1. The accrual recorded at December 31, 2003 consists of USD 84 million (2002: USD 82 million) provided for remediation at third party sites and USD 95 million (2002: USD 81 million) for remediation of owned facilities. In the US, Novartis has been named under federal legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as a potentially responsible party ("PRP") in respect to certain sites. Novartis actively participates in, or monitors, the clean-up activities at the sites in which it is a PRP. The estimated reserve takes into consideration the number of other PRPs at each site and the identity and financial position of such parties in light of the joint and several nature of the liability.

The requirement in the future for Novartis ultimately to take action to correct the effects on the environment of prior disposal or release of chemical substances by Novartis or other parties, and its costs, pursuant to environmental laws and regulations, is inherently difficult to estimate. The material components of the environmental provisions consist of costs to fully clean and refurbish contaminated sites and to treat and contain contamination at sites where the environmental exposure is less severe. The Novartis future remediation expenses are affected by a number of uncertainties which include, but are not limited to, the method and extent of remediation, the percentage of material attributable to Novartis at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties.

In connection with the 1997 spin-off of CIBA Specialty Chemicals AG ("CSC") from Novartis AG, a Novartis affiliate has agreed to reimburse CSC 50% of the costs: (i) associated with environmental liabilities arising in the US from the operations of the specialty chemicals business of the US affiliates of the former Ciba-Geigy AG, and (ii) which exceed reserves agreed between that affiliate and CSC. The reimbursement obligations are not subject to any time or amount limits but could terminate for certain liabilities in the US upon the occurrence of certain contingencies which include the merger of CSC or the sale of its assets.

Novartis believes that its total reserves for environmental matters are adequate based upon currently available information, however, given the inherent difficulties in estimating liabilities in this area, it cannot be guaranteed that additional costs will not be incurred beyond the amounts accrued. The effect of resolution of environmental matters on results of operations cannot be predicted due to uncertainty concerning both the amount and the timing of future expenditures and the results of future operations. Management believes that such additional amounts, if any, would not be material to the Group's financial condition but could be material to the results of operations in a given period.

The following table shows the movements in the environmental liability provisions during 2003 and 2002:

	2003 USD millions	2002 USD millions

	2003 USD millions	2002 USD millions
January 1	**163**	**136**
Cash payments	-4	-2
Releases	-18	-8
Additions	25	16
Translation effect, net	13	21
December 31	**179**	**163**
Less short-term liability	-2	-2
Long-term liability at December 31	**177**	**161**

b) Legal and product liabilities:

A number of Group companies are the subject of litigation arising out of the normal conduct of their business, as a result of which claims could be made against them which, in whole or in part, might not be covered by insurance. In the opinion of Group management, however, the outcome of the actions if any, would not be material to the Novartis financial condition but could be material to the Novartis results of operations in a given period.

Augmentin® (amoxicillin/potassium clavulanate): A series of lawsuits by GlaxoSmithKline (GSK) against affiliates of Novartis regarding amoxicillin/potassium clavulanate, Novartis' generic version of GSK's Augmentin®, have been resolved in the Group's favor. The Group launched the first generic version of this GSK product in the US in July 2002, following favorable decisions by the United States District Court for the Eastern District of Virginia invalidating seven patents alleged by GSK to cover its Augmentin® product. GSK's appeal of the district court's decision was unsuccessful. Novartis has also resolved actions which GSK initiated against several of the Group's affiliates in state courts and before the US International Trade Commission alleging that the potassium clavulanate used in manufacturing the Group's product is produced using GSK trade secrets. In July 2003, an agreement was reached on this issue with GSK. Under the terms of the agreement, GSK will receive single-digit percentage royalties on US sales of generic versions of Augmentin® sold by Novartis or its affiliate companies for the four year period from July 2002 through June 2006.

Average Wholesale Price Litigation: Claims have been brought against various US pharmaceutical companies, including Novartis affiliates alleging that they have fraudulently overstated the Average Wholesale Price (AWP) and "best price", which is used by the US government to calculate Medicare and Medicaid reimbursements. Novartis affiliates have been named in a number of these cases. Novartis affiliates have also voluntarily participated in an ongoing Congressional inquiry on the subject of AWP and pharmaceutical pricing. Discovery is in process against certain defendants in these cases, but not yet against Group affiliates.

Pharmaceutical Antitrust Litigation: A Novartis affiliate along with numerous other prescription drug manufacturers, is a co-defendant in various actions brought by certain US retail pharmacies, alleging antitrust and pricing violations. Pretrial motion practice is underway. A trial is scheduled in one of these actions to commence in late 2004.

PPA: Novartis affiliates are parties to over 400 lawsuits in the US brought by people claiming to have been injured by products containing phenylpropanolamine (PPA) sold by certain of those affiliates. These cases are in various stages of litigation with Novartis having achieved victories in the first three claims to have gone to trial. However, other trials are currently ongoing, and more will follow. There can be no guarantee that the affiliates' initial successes will be repeated or sustained in the event of an appeal.

SMON (Subacute Myelo Optico Neuropathy): In 1996 an affiliate of Ciba-Geigy, one of the predecessor companies of Novartis, together with two other pharmaceutical companies, settled certain product liability issues related to sales of its product Clioquinol in Japan. Under the settlement, a Novartis affiliate is required to pay certain future health care costs of the claimants.

Terazosin: A Sandoz affiliate is a defendant in a number of lawsuits in the US claiming injuries and damages allegedly arising out of violation of antitrust laws in the settlement, by the affiliate and Abbott Pharmaceuticals, of a contentious patent litigation involving Abbott's Hytrin® and the Sandoz generic equivalent product. The affiliate has a judgment sharing agreement with Abbott that caps its liability. In addition, in one of

the proceedings, the affiliate was successful in overturning on appeal a trial court decision that the settlement of the litigation was *per se* unlawful, and certifying a plaintiff's class. The case has been remanded to the trial court for further proceedings.

Novartis believes that its affiliates have meritorious defenses in these cases, and they are vigorously defending each of them.

From time to time, the Group's affiliates may be the subject of government investigations arising out of the normal conduct of their business. Consistent with the Novartis Code of Conduct and policies regarding compliance with law, it is the Group's policy to cooperate with such investigations.

US enteral pump market: A Novartis Medical Nutrition affiliate in the US is a subject of an investigation by the US Department of Justice regarding marketing and pricing practices in the US enteral pump market, including whether certain federal criminal statutes have been violated. Novartis is cooperating with that investigation.

Novartis maintains general liability insurance, including product liability insurance, covering claims on a worldwide basis. While claims could be made against the Group's affiliates which, in whole or in part, might not be covered by insurance, the Group believes that its insurance coverage limits and retention amounts are reasonable and prudent in light of its businesses and the risks to which the Group is subject.

The following table shows the movements in the legal and product liability provisions during 2003 and 2002:

	2003 USD millions	2002 USD millions
January 1	**420**	**316**
Consolidation changes	26	
Cash payments	-152	-60
Releases	-158	-19
Additions	317	160
Translation effect, net	18	23
December 31	**471**	**420**
Less short-term liability	-136	-166
Long-term liability at December 31	**335**	**254**

20. Short-term financial debts

	2003 USD millions	2002 USD millions
Interest bearing employee accounts	926	816
Other bank and financial debt	660	634
Commercial paper	649	949
Current portion of long-term financial debt	45	111
Fair value of derivative financial instruments	499	331
Total	**2 779**	**2 841**

The balance sheet values of short-term financial debt, other than the current portion of long-term financial debts, approximates to the estimated fair value due to the short-term nature of these instruments.

The weighted average interest rate on the bank and other financial debt including employee accounts was 3.1% and 3.5% in 2003 and 2002, respectively.

21. Other short-term liabilities

	2003 USD millions	2002 USD millions
Income and other taxes	872	546
Restructuring liabilities	43	98
Accrued expenses	2 912	2 366
Potential claims from insurance activities	149	206
Social security/pension funds	80	70
Environmental liabilities	2	2
Deferred income relating to government grants	14	14
Goods returned and commission liabilities	15	9
Legal and product liability settlements	136	166
Other payables	653	688
Total	**4 876**	**4 165**

Restructuring charges: In October 2002, charges of USD 20 million were incurred in conjunction with the divestment of the Food & Beverage business to Associated British Foods plc (ABF). The charges comprised employee termination costs of USD 8 million and other third party costs of USD 12 million. 45 employees not transferred to ABF were identified in the original plan, all but 4 of whom have now left the Group. These 4 associates are fulfilling an interim service level agreement with the new owners and are expected to leave in 2005. All other significant actions associated with the restructuring plan are expected to be completed during 2004.

In December 2002, provision was made for charges of USD 28 million in conjunction with the plan to re-organize the Health Food and Slimming as well as Sports Nutrition businesses into a stand-alone unit called Nutrition & Santé. The charges comprised employee termination costs of USD 17 million and other third party costs of USD 11 million. 120 associates were identified in the original plan, of whom 25 remained employed by the Group as at December 31, 2003, but all of whom are expected to leave in 2004. All other actions of this plan will be completed in 2004.

In December 2002 charges of USD 10 million were incurred in conjunction with a plan to restructure the OTC business. The charges comprised employee termination costs of USD 9 million and other third party costs of USD 1 million. 90 associates were impacted by the restructuring, of whom 5 remain employed by the Group as at December 31, 2003, but all of whom are expected to leave in 2004. All other actions of this plan will also be completed in 2004.

In 2003 there were no significant restructuring charges.

The releases to income in 2003 and 2002 of USD 12 million and USD 23 million respectively, were mainly due to settlement of liabilities at lower amounts than originally anticipated.

Tangible fixed asset impairments are determined based on the review of the carrying values of tangible fixed assets. Write-downs are recorded for tangible fixed assets impaired or related to activities to be restructured, divested or abandoned. The provision is transferred to accumulated depreciation as the tangible fixed assets are restructured, divested or abandoned.

Other third party costs are mainly associated with lease and other obligations due to the abandonment of certain facilities.

	Employee termination costs USD millions	Tangible fixed asset impairments USD millions	Other third party costs USD millions	Total USD millions
Balance at January 1, 2002	**36**	**31**	**74**	**141**
Cash payments	-21		-58	-79
Releases	-6	-12	-5	-23
Additions	34		24	58
Non-income tangible fixed asset write-offs		-4		-4
Translation effect, net	3		2	5
Balance at December 31, 2002	**46**	**15**	**37**	**98**
Cash payments	-27		-16	-43
Releases	-1	-2	-9	-12
Balance at December 31, 2003	**18**	**13**	**12**	**43**

22. Cash flows arising from changes in net current assets and other operating cash flow items

	2003 USD millions	2002 USD millions
Change in inventories	-78	-275
Change in trade accounts receivable and other net current assets	297	49
Change in trade accounts payable	238	74
Total	**457**	**-152**

23. Cash flows arising from major acquisitions and divestments of subsidiaries

The following is a summary of the cash flow impact of the major divestments and acquisitions of subsidiaries:

	2003 Acquisitions USD millions	2002 Acquisitions USD millions	2002 Divestments USD millions
Tangible fixed assets	-1	-165	61
Other identifiable long-term assets	-24	-28	5
Inventories	-1	-125	19
Trade accounts receivable and other current assets	-1	-106	33
Marketable securities, cash and short-term deposits		-103	20
Long-term and short-term debt to third parties		5	-21
Trade accounts payable and other liabilities	36	133	21

	2003 Acquisitions USD millions	2002 Acquisitions USD millions	2002 Divestments USD millions
Net identifiable assets acquired/divested	**9**	**-389**	**138**
Less acquired/divested liquidity	18	103	-20
Sub-total	**27**	**-286**	**118**
Goodwill	-303	-618	
Divestment gains			133
Amount settled in treasury shares		78	
Translation effects	4	33	
Net Cash Flow	**-272**	**-793**	**251**

The significant changes in the companies that have been consolidated are described in note 2. All acquisitions were for cash, except in 2002 an amount equivalent to USD 78 million which was settled in Novartis ADSs.

24. Changes in consolidated equity

a) The 2003 and 2002 changes in the fair value of financial instruments not recorded in the income statement and transfers to the income statement consist of the following:

	Fair value adjustments to marketable securities USD millions	Fair value of deferred cash flow hedges USD millions	Total USD millions
Fair value adjustments at January 1, 2002	**656**	**-10**	**646**
Changes in fair value:			
available-for-sale marketable securities	-494		-494
cash flow hedges		144	144
other financial assets	-344		-344
Realized gains or losses transferred to the income statement:			
marketable securities sold	-174		-174
derivative financial instruments		-88	-88
other financial assets sold	-8		-8
Impaired other financial assets	64		64
Reclassification in equity[(1)]	-98	79	-19
Deferred tax on above	99	-12	87
Fair value adjustments at December 31, 2002	**-299**	**113**	**-186**
Changes in fair value:			
available-for-sale marketable securities	146		146
cash flow hedges		26	26
other financial assets	21		21
associated companies' equity movements	41		41
Realized gains or losses transferred to the income statement:			
marketable securities sold	92		92

	Fair value adjustments to marketable securities USD millions	Fair value of deferred cash flow hedges USD millions	Total USD millions
derivative financial instruments		-165	-165
other financial assets sold	1		1
Impaired marketable securities and other financial assets	146		146
Deferred tax on above	-74	33	-41
Fair value adjustments at December 31, 2003	**74**	**7**	**81**

(1) Transfer of USD 98 million of unrealized gains to retained earnings due to fair value adjustments on Syngenta AG shares retained by the Group after the 2000 Novartis Agribusiness spin-off and transfer of USD 79 million of translation losses in connection with hedges of the translation of net investments in foreign subsidiaries.

b) The Group has investments in associated companies, principally Roche Holding AG and Chiron Corporation. The Group's share in associated companies' currency translation adjustments, unrealized fair value adjustments on marketable securities and hedging transactions are allocated directly to the appropriate component of the Group's consolidated statement of changes in equity.

c) Goodwill previously written-off against retained earnings, in accordance with IFRS in effect prior to 1995, has been transferred to the income statement as a reduction of a gain following the renegotiation in 2002 of the final purchase price of this 1994 transaction.

d) The Board of Directors proposes a dividend of CHF 1.00 per share for 2003 (2002: CHF 0.95 per share amounting to USD 1.7 billion which was paid in 2003) totaling USD 2.0 billion for all dividend bearing shares. The amount available for dividend distribution is based on the available distributable retained earnings of Novartis AG determined in accordance with the legal provisions of the Swiss Code of Obligations.

e) USD 939 million of shares were acquired during 2003 under the Group's third share buy-back program on the second trading line and USD 666 million of shares, net were sold on the first trading line. This resulted in a net reduction in Group consolidated equity of USD 273 million (2002: USD 3.2 billion).

f) Pursuant to a resolution approved at the March 22, 2003 Annual General Meeting, 22.7 million shares with a nominal value of USD 8 million were cancelled representing shares acquired in 2002 on the second trading line buy-back program (2002: 61.1 million shares were cancelled with a nominal value of USD 22 million).

g) During December 2001, Novartis sold a total of 55 million ten-year call options (Low Exercise Price Options "LEPOs") on Novartis shares, with an exercise price of CHF 0.01, to a third party. The Group received EUR 2.2 billion in proceeds (EUR 40 per LEPO). The Group accounted for the LEPOs as an increase in share premium at fair value less related issuance costs. Following changes in US GAAP and expected changes in IFRS rules, Novartis redeemed, in advance, these equity instruments on June 26, 2003.

h) During December 2001, Novartis sold a total of 55 million nine and ten-year put options on Novartis shares to a third party with an exercise price of EUR 51, the Group received EUR 0.6 billion in proceeds (EUR 11 per put option). The Group accounted for the option premium associated with the put options as an increase in share premium less related issuance costs. Following changes in US GAAP and expected changes in IFRS, Novartis redeemed, in advance, these equity instruments on June 26, 2003.

25. Employee benefits

a) Defined benefit plans: The Group has, apart from the legally required social security schemes, numerous independent pension plans. For certain Group companies, however, no independent assets exist for the pension and other long-term employee benefit obligations. In these cases the related liability is included in the balance sheet.

Defined benefit pension plans cover the majority of the Group's employees. The defined benefit obligations and related assets of all major plans are reappraised annually by independent actuaries. Plan assets are recorded at fair values. The following is a summary of the status of the main

defined benefit plans at December 31, 2003 and 2002:

	2003 USD millions	2002 USD millions
Funded assets of independent defined benefit	16 128	14 365
Defined benefit obligations of active and retired employees of funded plans	-13 112	-11 320
Funded Status	**3 016**	**3 045**
Defined benefit obligations of active and retired employees of unfunded plans	-753	-525
Unrecognized past service costs	6	
Unrecognized actuarial losses, net of gains	777	266
Net asset in balance sheet	**3 046**	**2 786**

The net asset in the balance sheet consists of:

	2003 USD millions	2002 USD millions
Prepaid pension expense included in financial and other assets	3 976	3 527
Accrued pension costs included in other long-term liabilities	-930	-741
Total net asset	**3 046**	**2 786**

The following are the principal actuarial assumptions, used for calculating the 2003 and 2002 income statement amounts and the above-stated December 31, 2003 and 2002 funded status of the main defined benefit plans:

	Income statement		Funded status	
	2003	2002	2003	2002
Weighted average %	%	%	%	%
Discount	4.6	4.5	4.3	4.5
Payroll indexation	2.8	2.8	2.8	2.8
Return on assets	5.6	6.1	5.6	6.1

In some Group companies employees are covered by defined contribution plans and other long-term employee benefits. The liability of the Group for these benefits is reported in other long-term employee benefits and deferred compensation and at December 31, 2003 amounts to USD 183 million (2002: USD 180 million). In 2003 contributions charged to the consolidated income statement for the defined contribution plans were USD 84 million (2002: USD 85 million).

The number of Novartis AG shares held by pension and similar benefit funds at December 31, 2003 was 31.5 million shares with a market value of USD 1.3 billion (2002: 31.5 million shares with a market value of USD 1.1 billion). These funds did not dispose of any Novartis AG shares during the year ended December 31, 2003 (2002: 2.5 million shares). The amount of dividends received on Novartis AG shares held as plan assets by these funds were USD 22 million for the year ended December 31, 2003 (2002: USD 22 million).

b) Defined benefit plan and other post-employment benefit scheme balance sheet and income statement details:

The Group's post-employment healthcare, insurance and other related post-employment benefits are not funded. The following is a summary of the balance sheet movements in relation to defined benefit plans and other post-employment benefits:

	Defined benefit pension plans		Other post-employment benefits	
	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Asset/(liability) at January 1	**2 786**	**2 227**	**-421**	**-416**
Increase in prepaid pensions	449	643		
Increase in accrued liabilities	-189	-84	-39	-5
Asset/(liability) at December 31	**3 046**	**2 786**	**-460**	**-421**

The amounts recognized in the income statement are as follows:

	Defined benefit pension plans		Other post-employment benefits	
	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Expected return on plan assets	796	970		
Employee contributions	39	7		
Current service cost	-285	-277	-19	-14
Interest cost	-559	-552	-40	-36
Past service costs	27		4	
Amortization of actuarial gains and losses	-72	-9	-8	-4
Income/(expense)	**-54**	**139**	**-63**	**-54**

The actual return on plan assets for 2003 taking into account realized and unrealized capital gains and losses was a gain of USD 916 million (2002: USD 1 173 million loss).

The following are the principal actuarial assumptions used for calculating the other post-employment benefits:

	2003 Weighted average %	2002 Weighted average %
Discount rate	6.3	6.8
Healthcare cost trend (initial)	9.0	10.0
Healthcare cost trend (ultimate)	4.8	4.8

26. Employee share participation plans

Employee and management share participation plans exist as follows:

a) Novartis Share Option Plan: Under the current plan, share options are granted annually as part of the remuneration of executives and other employees, as selected by the Board's Compensation Committee. These options are exercisable after two years and expire after nine years. Each option entitles the holder to acquire one Novartis AG share at a predetermined exercise price. In May 2001, the Novartis AG shares were split 40 to 1. Options granted prior to that date entitled the holder to acquire 40 Novartis AG shares per option. The figures in the tables below have been

restated for grants before 2002 to reflect this change. The number of options granted depends on the performance of the individuals and the Business Unit in which they work. In order to further align the Novartis Share Option Plan and the US ADS Incentive Plan, as of 2004 the vesting period for the Novartis Share Option Plan has been increased to three years.

	2003		2002	
	Options (millions)	Weighted average exercise price (USD)	Options (millions)	Weighted average exercise price (USD)
Options outstanding at January 1	**11.5**	**43.6**	**7.2**	**35.4**
Granted	9.8	39.0	5.6	44.3
Exercised	-0.1	43.3	-1.0	40.1
Cancelled	-0.2	43.3	-0.3	43.9
Outstanding at December 31	**21.0**	**44.3**	**11.5**	**43.6**
Exercisable at December 31	**6.0**	**47.8**	**3.8**	**38.4**
Weighted average fair value of options granted during the year (USD)		15		8

All options were granted at an exercise price which was greater than the market price of the Group's shares at the grant date.

The following table summarizes information about share options outstanding at December 31, 2003:

	Options outstanding			Options exercisable	
Range of exercise prices (USD)	Number outstanding (millions)	Average remaining contractual life (years)	Weighted average exercise price (USD)	Number exercisable (millions)	Weighted average exercise price (USD)
30-34	0.8	3.2	34.0	0.8	34.0
35-39	9.8	8.0	39.1	0.1	38.8
40-44	1.8	5.1	41.1	1.8	41.1
45-49	5.3	7.1	49.6		
50-54	0.9	4.2	54.7	0.9	54.7
55-59	2.4	6.1	56.0	2.4	56.0
Total	**21.0**	**7.0**	**44.3**	**6.0**	**47.8**

b) Novartis US ADS Incentive Plan: The US ADS Incentive Plan was introduced in 2001 and supplements the previous US Management ADS Appreciation Cash Plan. Under the US ADS Incentive Plan, options are granted annually on Novartis ADSs at a pre-determined exercise price as part of the remuneration of US-based executives and other selected employees. The number of options granted depends on the performance of the individuals and of the Division/Business Unit in which they work. Options are exercisable after three years and terminate after ten years. Under the previous US Management ADS Appreciation Cash Plan, Novartis US-based employees in the USA were entitled to cash compensation equivalent to the increase in the value of Novartis ADSs compared to the market price of the ADSs at the grant date.

	2003		2002	
	ADS options (millions)	Weighted average exercise price (USD)	ADS options (millions)	Weighted average exercise price (USD)
Options outstanding at January 1	**23.2**	**39.3**	**8.5**	**42.1**
Granted	20.0	36.4	15.8	37.3
Exercised	-0.1	41.8		
Cancelled	-2.5	38.0	-1.1	39.5
Outstanding at December 31	**40.6**	**37.7**	**23.2**	**38.8**
Exercisable at December 31	**1.2**	**38.8**	**0.7**	**39.3**
Weighted average fair value of options granted during the year (USD)		17		11

All ADS options were granted at an exercise price which was equal to, or greater than, the market price of the ADS at the grant date.

The following table summarizes information about ADS options outstanding at December 31, 2003:

	ADS options outstanding			ADS options exercisable	
Range of exercise prices (USD)	Number outstanding (millions)	Average remaining contractual life (years)	Weighted average exercise price (USD)	Number exercisable (millions)	Weighted average exercise price (USD)
31-35	0.1	6.5	34.0		
36-40	33.3	8.2	36.7	0.8	37.1
41-45	7.2	7.3	42.0	0.4	42.2
	40.6	**8.0**	**37.7**	**1.2**	**38.8**

c) Long-Term Performance Plan: This plan is offered to selected executives. Under the Long-Term Performance Plan, participants are awarded the right to earn Novartis AG shares. Actual payouts, if any, are dependent on achievements of long-term targets such as economic value added relative to pre-determined strategic plan targets over a three-year period. Additional functional objectives may be considered in the evaluation of performance. If performance is below the threshold level of the pre-determined targets, no shares will be earned. To accommodate the starting phase of the Plan, "bridging periods" of one year duration were introduced for the payouts in 2001, 2002 and 2003. During 2003 a total of 507 507 shares (2002: 232 548 shares) were granted to executives.

d) Leveraged Share Savings Plan: Participants under this plan can make an election to receive all or part of their annual incentive award in Novartis AG shares. Shares received under the plan are blocked for a five year period after the grant date. At the end of the blocking period, Novartis will match the respective shares on a one-for-one basis. During 2003, 279 619 shares (2002: 245 838 shares) were granted to participants.

e) New Swiss Employee Share Ownership Plan: A new Swiss Employee Share Ownership Plan (ESOP) was introduced as of January 1, 2002 to encourage employees in Switzerland to invest in Novartis. The new ESOP provides for the annual variable incentive to be delivered

wholly in the form of Novartis AG shares at a fixed date at a fair market value at that date. Employees are free to sell 50% or 100% of these shares immediately. Shares received under the plan have a three year blocking period and are matched with one share for every two shares held at the end of the blocking period. In 2003 the Swiss employees received 3 942 687 shares for the first time under this scheme.

f) Old Swiss Employee Share Ownership Plan: In 1998, a Swiss Employee Share Ownership Plan was introduced for all employees of Swiss subsidiaries. This Plan entitled employees after one year of service to acquire 120 shares in Novartis AG every year at a price determined by the Board's Compensation Committee, which was CHF 12.50 per share in 2002. In 2002, 406 448 shares were distributed under this Plan. 2002 was the last year in which employees could purchase shares under this scheme. Employees who joined Novartis after January 1, 2002 only participate in the new ESOP.

g) Restricted Share Plan: Under the Restricted Share Plan, employees may be granted restricted share awards either as a result of a general grant or as a result of an award based on having met certain performance criteria. Shares granted under this Plan generally have a five-year vesting period. During 2003 a total of 233 510 shares (2002: 117 902 shares) were granted to executives and selected employees.

Movements in Novartis AG shares held by the Novartis Foundation for Employee Participation were as follows:

	2003 Number of shares (000)	2002 Number of shares (000)
January 1	**95 072**	**101 312**
Shares bought/sold	1 163	-5 238
Shares distributed to employees	-2 935	-1 002
December 31	**93 300**	**95 072**

The market value of the Novartis AG shares held by the Foundation at December 31, 2003 was USD 4.2 billion (2002: USD 3.4 billion).

27. Related parties

The Novartis Group has formed certain foundations with the purposes of advancing employee welfare, employee share participation, research and charitable contributions. The charitable foundations foster health care and social development in rural countries. Each of these foundations is autonomous and its board is responsible for its respective administration in accordance with the foundation's purpose and applicable law.

The Novartis Foundation for Employee Participation has not been included in the consolidated financial statements prepared under IFRS as Interpretation No. 12 of the Standing Interpretations Committee exempts post-employment and equity compensation plans from its scope. The total assets of this Foundation as of December 31, 2003 included 93.3 million shares of Novartis AG with a market value of USD 4.2 billion. As of December 31, 2002, the assets included 95.1 million Novartis shares with a market value of USD 3.4 billion. This Foundation is consolidated under US GAAP and is included as a reconciling item in the US GAAP reconciliation.

In 2003, the Group granted short-term loans totaling USD 651 million to the above mentioned foundations and received short-term loans totaling USD 8 million from them. In 2002, the Group granted short-term loans totaling USD 623 million to the foundations, received short-term loans totaling USD 2 million from them.

In addition, there are approximately twenty other foundations that were established for charitable purposes that have not been consolidated as the Group does not receive a benefit therefrom. As of December 31, 2003 these foundations held approximately 6.1 million shares of Novartis, with a cost of approximately USD 32 million.

See notes 5, 25 and 26 to the consolidated financial statements for disclosure of other related party transactions and balances.

28. Commitments and contingencies

Spin-off of Novartis Agribusiness: All remaining significant matters in connection with the 1999 Master Agreement between Novartis AG and AstraZeneca Plc for the spin-off and merger of their respective agrochemical businesses into Syngenta AG have been completed during 2003.

Chiron Corporation: In connection with its original investment in Chiron, Novartis has agreed to:

purchase up to USD 500 million of new Chiron equity at fair value, at Chiron's request. To date, Chiron has made no such request.

guarantee up to USD 703 million of Chiron debt. Utilization of the guarantee in excess of USD 403 million reduces the equity put amount mentioned above. Novartis' obligation under the guarantee is only effective if Chiron defaults on the debt.

The outstanding equity put and guarantee expire no later than 2011.

Leasing commitments:		**2003 USD millions**
Commitments arising from fixed-term operational leases in effect at December 31 are as follows:		
	2004	211
	2005	172
	2006	119
	2007	87
	2008	69
	Thereafter	270
Total		**928**
Expense of current year		**232**

Research & Development commitments: The Group has entered into long-term research agreements with various institutions, including USD 729 million of potential milestone payments. As of December 31, 2003 they are as follows:

	2003 USD millions
2004	524
2005	337
2006	243
2007	101
2008	154
Thereafter	181
Total	**1 540**

Contingencies: Group companies have to observe the laws, government orders and regulations of the country in which they operate. A number of them are currently involved in administrative proceedings arising out of the normal conduct of their business. In the opinion of Group management, however, the outcome of these actions will not materially affect the Group's financial position, result of operations or cash flow.

The material components of the Group's potential environmental liability consist of a risk assessment based on investigation of the various sites identified by the Group as at risk for environmental exposure. The Group's future remediation expenses are affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to the Group at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties. The Group does not expect the resolution of such uncertainties to have a material effect on the consolidated financial statements.

29. Principal currency translation rates

			2003 USD	2002 USD
Year end rates used for the consolidated balance sheets:				
	1	CHF	0.800	0.712
	1	EUR	1.247	1.038
	1	GBP	1.774	1.601
	100	JPY	0.935	0.834
Average rates of the year used for the consolidated income and cash flow statements:				
	1	CHF	0.745	0.643
	1	EUR	1.131	0.946
	1	GBP	1.636	1.503
	100	JPY	0.867	0.802

30. Events subsequent to the December 31, 2003 balance sheet date

On December 16, 2003, the Medical Nutrition business unit announced its intention to acquire the brands, trademarks, patents and intellectual property assets of Mead Johnson & Company's global adult medical nutrition business in a USD 385 million cash transaction. Mead Johnson & Company, a subsidiary of Bristol-Myers Squibb Company, is a leader in sales and marketing of adult medical nutrition products. Completion of this transaction is pending subject to finalization of regulatory review.

A US subsidiary, Idenix Inc., has filed with the US Securities & Exchange Commission (SEC) for an initial public offering of its shares on a US stock exchange. The exact timing and terms of the offering have still to be decided.

The 2003 consolidated financial statements of the Novartis Group were approved by the Novartis AG Board of Directors on January 20, 2004.

31. Group subsidiaries and associated companies

As at December 31, 2003

	Share/paid-in in capital[1]	Equity interest %	Activities	
Argentina				
Novartis Argentina S.A., Buenos Aires	ARS 230.6 m	100	Δ	
Australia				
Novartis Australia Pty Ltd., North Ryde, NSW	AUD 11.0 m	100	/*/	
Novartis Pharmaceuticals Australia Pty Ltd., North Ryde, NSW	AUD 3.8 m	100		/*\
Novartis Consumer Health Australasia Pty Ltd., Mulgrave, Victoria	AUD 7.6 m	100	Δ	
Novartis Animal Health Australasia Pty Ltd., North Ryde, NSW	AUD 3.0 m	100		/*\
Austria				

	Share/paid-in in capital[1]	Equity interest %	Activities		
Novartis Pharma GmbH, Vienna	EUR 1.1 m	100			
Novartis Forschungsinstitut GmbH, Vienna	EUR 10.9 m	100			/*\
Sandoz GmbH, Vienna	EUR 100 000	100	/*/		
Sandoz GmbH, Kundl	EUR 32.7 m	100	/*/	Δ	/*\
Novartis Animal Health GmbH, Kundl	EUR 37 000	100			
Bangladesh					
Novartis (Bangladesh) Limited, Dhaka	BDT 162.5m	60		Δ	
Belgium					
N.V. Novartis Management Services S.A., Vilvoorde	EUR 7.5 m	100	/*/		
N.V. Novartis Pharma S.A., Vilvoorde	EUR 7.1 m	100			
N.V. Novartis Consumer Health S.A., Bruxelles	EUR 4.8 m	100			
N.V. CIBA Vision Benelux S.A., Mechelen	EUR 62 000	100			
Bermuda					
Triangle International Reinsurance Ltd., Hamilton	CHF 1.0 m	100	/*/		
Novartis Securities Investment Ltd., Hamilton	CHF 30 000	100	/*/		
Novartis International Pharmaceutical Ltd., Hamilton	CHF 10.0 m	100	/*/		
Brazil					
Novartis Biociências S.A., São Paulo	BRL 158.1 m	100		Δ	
Novartis Saúde Animal Ltda., São Paulo	BRL 19.9 m	100		Δ	
Canada					
Novartis Pharmaceuticals Canada Inc., Dorval/Montreal	CAD 1.3 m	100			/*\
Novartis Consumer Health Canada Inc., Mississauga, Ontario	CAD 2	100			
CIBA Vision Canada Inc., Mississauga, Ontario	CAD 1	100		Δ	
Chile					
Novartis Chile S.A., Santiago de Chile	CLP 2.0 bn	100			

	Share/paid-in in capital[1]	Equity interest %	Activities		
China					
Beijing Novartis Pharma Ltd., Beijing	CNY 111.3 m	78		Δ	
Novartis Pharmaceuticals (HK) Limited, Hong Kong	HKD 200	100			
Colombia					
Novartis de Colombia S.A., Santafé de Bogotá	COP 20.9 bn	100		Δ	
Croatia					
Lek Zagreb d.o.o., Zagreb	HRK 25.6 m	100		Δ	
Czech Republic					
Novartis s.r.o., Prague	CZK 51.5 m	100			
Denmark					

	Share/paid-in in capital[1]	Equity interest %	Activities		
Novartis Healthcare A/S, Copenhagen	DKK 8.0 m	100			
Ecuador					
Novartis Ecuador S.A., Quito	USD 209 193	100			
Egypt					
Novartis Pharma S.A.E., Cairo	EGP 33.8 m	99		Δ	
Novartis Egypt (Healthcare) S.A.E., Cairo	EGP 250 000	95			
Finland					
Novartis Finland Oy, Espoo	EUR 459 000	100			
France					
Novartis Groupe France S.A., Rueil-Malmaison	EUR 263.0 m	100	/*/		
Novartis France S.A.S., Rueil-Malmaison	EUR 1.4 m	100	/*/		
Novartis Pharma S.A.S., Rueil-Malmaison	EUR 43.4 m	100		Δ	/*\
Sandoz S.A.S., Levallois-Perret	EUR 2.6 m	100			
Novartis Santé Familiale S.A.S., Rueil-Malmaison	EUR 21.9 m	100		Δ	
Novartis Santé Animale S.A.S., Rueil-Malmaison	EUR 900 000	100		Δ	
Novartis Nutrition S.A.S., Revel	EUR 300 000	100		Δ	
Nutrition et Santé S.A.S., Revel	EUR 30.2 m	100	/*/	Δ	/*\
CIBA Vision S.A.S., Blagnac	EUR 1.8 m	100			
Germany					
Novartis Deutschland GmbH, Wehr	EUR 35.8 m	100	/*/		
Novartis Pharma GmbH, Nuremberg	EUR 25.6 m	100		Δ	/*\
Sandoz Pharmaceuticals GmbH, Ismaning	EUR 5.1 m	100		Δ	
Sandoz Industrial Products GmbH, Frankfurt a.M.	EUR 2.6 m	100		Δ	
Novartis Consumer Health GmbH, Munich	EUR 14.6 m	100		Δ	/*\
Novartis Nutrition GmbH, Munich	EUR 23.5 m	100		Δ	/*\
CIBA Vision Vertriebs GmbH, Grossostheim	EUR 2.6 m	100			
CIBA Vision GmbH, Grosswallstadt	EUR 15.4 m	100		Δ	/*\
Gibraltar					
Novista Insurance Limited, Gibraltar	CHF 130.0 m	100	/*/		

	Share/paid-in in capital[1]	Equity interest %	Activities		
Great Britain					
Novartis UK Ltd., Farnborough	GBP 25.5 m	100	/*/		
Novartis Pharmaceuticals UK Ltd., Frimley/Camberley	GBP 5.4 m	100		Δ	/*\
Novartis Grimsby Ltd., Farnborough	GBP 228.9 m	100		Δ	
Sandoz Ltd., Bordon	GBP 2.0 m	100			
Novartis Consumer Health UK Ltd., Horsham	GBP 25 000	100		Δ	
Novartis Animal Health UK Ltd., Royston	GBP 100 000	100			/*\
Vericore Ltd., Royston	GBP 2	100		Δ	
CIBA Vision (UK) Ltd., Southampton	GBP 550 000	100			
Greece					
Novartis (Hellas) S.A.C.I., Athens	EUR 14.6 m	100			

	Share/paid-in in capital[1]	Equity interest %	Activities		
Hungary					
Novartis Hungary Healthcare Limited Liability Company, Budapest	HUF 545.6 m	100			
India					
Novartis India Limited, Mumbai	INR 159.8 m	51		Δ	
Sandoz Private Limited, Mumbai	INR 32.0 m	100		Δ	
Indonesia					
PT Novartis Biochemie, Jakarta	IDR 7.7 bn	69		Δ	
PT CIBA Vision Batam, Batam	IDR 11.9 bn	100		Δ	
Ireland					
Novartis Ireland Limited, Dublin	EUR 25 000	100			
Novartis Ringaskiddy Limited, Ringaskiddy, County Cork	EUR 2.0 m	100		Δ	
Italy					
Novartis Farma S.p.A., Origgio	EUR 18.2 m	100	/*/	Δ	/*\
Sandoz Industrial Products S.p.A., Rovereto	EUR 2.6 m	100		Δ	
Novartis Consumer Health S.p.A., Origgio	EUR 2.9 m	100			
CIBA Vision S.r.l., Marcon	EUR 2.4 m	100			
Japan					
Novartis Pharma K.K., Tokyo	JPY 6.0 bn	100			/*\
Ciba-Geigy Japan Limited, Tokyo	JPY 8.5 bn	100		Δ	
CIBA Vision K.K., Tokyo	JPY 495.0 m	100			
Luxembourg					
Novartis Investments S.à r.l., Luxembourg	USD 2.6 bn	100	/*/		
Malaysia					
Novartis Corporation (Malaysia) Sdn. Bhd., Kuala Lumpur	MYR 3.3 m	70			
Mexico					
Novartis de México, S.A. de C.V., Mexico City	MXN 205.0 m	100	/*/		
Novartis Farmacéutica, S.A. de C.V., Mexico City	MXN 80.7 m	100		Δ	
Novartis Nutrition, S.A. de C.V., Mexico City	MXN 2.0 m	100			
Productos Gerber, S.A. de C.V., Mexico City	MXN 12.5 m	100		Δ	

	Share/paid-in in capital[1]	Equity interest %	Activities		
Netherlands					
Novartis Netherlands B.V., Arnhem	EUR 1.4 m	100	/*/		
Novartis Pharma B.V., Arnhem	EUR 4.5 m	100			
Sandoz B.V., Weesp	EUR 907 570	100		Δ	
Novartis Consumer Health B.V., Breda	EUR 23 830	100		Δ	
Netherlands Antilles					
Sandoz N.V., Curação	USD 6 000	100	/*/		

	Share/paid-in in capital[1]	Equity interest %	Activities		
Norway					
Novartis Norge AS, Oslo	NOK 1.5 m	100			
Pakistan					
Novartis Pharma (Pakistan) Limited, Karachi	PKR 24.8 m	98		Δ	
Panama					
Novartis Pharma (Logistics), Inc., Panama	USD 10 000	100			
Philippines					
Novartis Healthcare Philippines, Inc., Makati/Manila	PHP 298.8 m	100			
Poland					
Novartis Poland Sp. z o.o., Warsaw	PLN 44.2 m	100			
Lek Polska Sp. z o.o., Pruszkow	PLN 25.6 m	100			
Alima-Gerber S.A., Warsaw	PLN 45.4 m	100		Δ	
Portugal					
Novartis Portugal SGPS Lda., Sintra	EUR 500 000	100	/*/		
Novartis Farma Produtos Farmacêuticos S.A., Sintra	EUR 2.4 m	100			
Novartis Consumer Health Produtos Farmacêuticos e Nutrição Lda., Lisbon	EUR 100 000	100			
Puerto Rico					
Gerber Products Company of Puerto Rico, Inc., Carolina	USD 1.0 m	100		Δ	
CIBAVision Puerto Rico, Inc., Cidra	USD 14.0 m	100		Δ	
Russian Federation					
Novartis Pharma ZAO, Moscow	RUR 17.5 m	100			
Singapore					
Novartis Institute for Tropical Diseases Pte Ltd., Singapore	SGD 2 004	100			/*\
Slovenia					
Lek Pharmaceuticals d.d., Ljubljana	SIT 11.6 m	100	/*/	Δ	/*\
South Africa					
Novartis South Africa (Pty) Ltd., Spartan/Johannesburg	ZAR 86.4 m	100		Δ	
South Korea					
Novartis Korea Ltd., Seoul	KRW 24.5 bn	99		Δ	

	Share/paid-in in capital[1]	Equity interest %	Activities	
Spain				
Novartis Farmacéutica, S.A., Barcelona	EUR 64.5 m	100	/*/	Δ

	Share/paid-in in capital[1]	Equity interest %	Activities		
Sandoz Farmacéutica, S.A., Barcelona	EUR 270 450	100		Δ	/*\
Sandoz Industrial Products, S.A., Les Franqueses del Vallés/Barcelona	EUR 9.3 m	100		Δ	/*\
Novartis Consumer Health, S.A., Barcelona	EUR 876 919	100		Δ	
CIBA Vision, S.A., Barcelona	EUR 1.4 m	100		Δ	/*\
Sweden					
Novartis SverigeParticipations AB,Täby/Stockholm	SEK 51.0 m	100	/*/		
Novartis Sverige AB, Täby/Stockholm	SEK 5.0 m	100			
CIBA Vision Nordic AB, Askim/Göteborg	SEK 2.5 m	100			
Switzerland					
Novartis International AG, Basel	CHF 10.0 m	100	/*/		
Novartis Holding AG, Basel	CHF 100.2 m	100	/*/		
Novartis Securities AG, Basel	CHF 50.0 m	100	/*/		
Novartis Research Foundation, Basel	CHF 29.3 m	100			/*\
Novartis Foundation for Management Dev., Basel	CHF 100 000	100	/*/		
Roche Holding AG, Basel	CHF 160.0	33	/*/	Δ	/*\
Novartis Pharma AG, Basel	CHF 350.0 m	100	/*/	Δ	/*\
Novartis Pharma Services AG, Basel	CHF 50 000	100			
Novartis Pharma Schweizerhalle AG, Schweizerhalle	CHF 18.9 m	100		Δ	
Novartis Pharma Stein AG, Stein	CHF 251 000	100		Δ	/*\
Novartis Pharma Schweiz AG, Bern	CHF 5.0 m	100			
Novartis Ophthalmics AG, Hettlingen	CHF 200 000	100	/*/	Δ	/*\
Novartis Consumer Health S.A., Nyon	CHF 30.0 m	100	/*/	Δ	/*\
Novartis Consumer Health Schweiz AG, Bern	CHF 250 000	100			
Novartis Animal Health AG, Basel	CHF 101 000	100	/*/	Δ	/*\
Novartis Centre de Recherche Santé Animale S.A., St.Aubin	CHF 250 000	100			/*\
Novartis Nutrition AG, Bern	CHF 40.0 m	100	/*/		
CIBA Vision AG, Embrach	CHF 300 000	100	/*/		
Taiwan					
Novartis (Taiwan) Co., Ltd., Taipei	TWD 170.0 m	100		Δ	
Thailand					
Novartis (Thailand) Limited, Bangkok	THB 230.0 m	100			
Turkey					
Novartis Saglik, Gida ve Tarim Ürünleri Sanayi ve Ticaret A.S., Istanbul	TRL 49.1 tr	100		Δ	

	Share/paid-in in capital[1]	Equity interest %	Activities		
USA					
Novartis Corporation, Florham Park, NJ	USD 1.2 bn	100	/*/		
Novartis Finance Corporation, New York, NY	USD 5.0 bn	100	/*/		
Novartis Pharmaceuticals Corporation, East Hanover, NJ	USD 5.2 m	100		Δ	/*\
Novartis Ophthalmics, Inc., Duluth, GA	USD 350.0 m	100		Δ	
Novartis Institutes for BioMedical Research, Inc., Cambridge, MA	USD 35.0 m	100			/*\

	Share/paid-in in capital[1]	Equity interest %	Activities		
Novartis Institute for Functional Genomics, Inc., San Diego, CA	USD 175.4 m	100			/*\
Chiron Corporation, Emeryville, CA	USD 2.5 bn	42	/*/	Δ	/*\
Idenix Pharmaceuticals, Inc., Cambridge, MA	USD 191.3 m	54			/*\
Sandoz Inc., Princeton, NJ	USD 35.5 m	100		Δ	/*\
Biochemie U.S., Inc., Broomfield, CO	USD 20.0 m	100			
Lek Pharmaceuticals, Inc., Wilmington, NC	USD 200 000	100			
Novartis Consumer Health, Inc., Parsippany, NJ	USD 465.9 m	100		Δ	/*\
Novartis Animal Health US, Inc., Greensboro, NC	USD 25.0 m	100		Δ	/*\
Novartis Animal Vaccines, Inc., Overland Park, KS	USD 115.0 m	100		Δ	/*\
Novartis Nutrition Corporation, Minneapolis, MN	USD 68.8 m	10		Δ	/*\
Gerber Products Company, Fremont, MI	USD 614.9 m	100	/*/	Δ	/*\
Gerber Life Insurance Company, White Plains, NY	USD 28.2 m	100			
CIBA Vision Corporation, Duluth, GA	USD 368.4 m	100	/*/	Δ	/*\
Venezuela					
Novartis de Venezuela S.A., Caracas	VEB 1.4 bn	100			

In addition, the Group is represented by subsidiaries, associated companies or joint ventures in the following countries: Algeria, Costa Rica, Dominican Republic, Guatemala, the former Yugoslav Republic of Macedonia, Morocco, New Zealand, Nigeria, Peru, Romania, Serbia and Montenegro and Uruguay.

The following describe the various types of entities within the Group:

/*/
Holding/Finance: This entity is a holding company and/or performs finance functions for the Group.

Sales: This entity performs sales and marketing activities for the Group.

Δ
Production: This entity performs manufacturing and/or production activities for the Group.

/*\
Research: This entity performs research and development activities for the Group.

Equity interest % above 50% and up to 100% of the voting rights fully consolidated
above 20% and up to 50% of the voting rights investment in associated company equity method accounting

(1) Share/paid-in capital may not reflect the taxable share/paid-in capital amount.

m = million; bn = billion; tr = trillion

Reconciliation to US GAAP

32. Significant Differences Between IFRS and United States Generally Accepted Accounting Principles (US GAAP)

The Group's consolidated financial statements have been prepared in accordance with IFRS, which as applied by the Group, differs in certain significant respects from US GAAP. The effects of the application of US GAAP to net income and equity are set out in the tables below:

	Notes	2003 USD millions	2002 USD millions
Net income under IFRS		**5 016**	**4 725**
US GAAP adjustments:			
Purchase accounting: Ciba-Geigy	a	-339	-294
Purchase accounting: other acquisitions	b	-175	-298
Purchase accounting: IFRS goodwill amortization	c	172	140
Available-for-sale securities and derivative financial instruments	d	-240	-273
Pension provisions	e	-18	27
Share-based compensation	f	-273	-120
Consolidation of share-based employee compensation foundation	g	-3	-20
Deferred taxes	h	-63	-93
In-process research and development	i	-260	-11
Other	j	-20	-95
Deferred tax effect on US GAAP adjustments		-9	141
Net income under US GAAP		**3 788**	**3 829**
Basic earnings per share under US GAAP (USD)		1.59	1.58
Diluted earnings per share under US GAAP (USD)		1.57	1.55

	Notes	December 31, 2003 USD millions	December 31, 2002 USD millions
Equity under IFRS		**30 429**	**28 269**
US GAAP adjustments:			
Purchase accounting: Ciba-Geigy	a	3 131	3 113
Purchase accounting: other acquisitions	b	2 808	3 011
Purchase accounting: IFRS goodwill amortization	c	327	155
Pension provisions	e	1 209	1 072
Share-based compensation	f	-96	-156
Consolidation of share-based employee compensation foundation	g	-728	-489
Deferred taxes	h	-609	-547
In-process research and development	i	-1 338	-984
Other	j	-93	-34
Deferred tax effect on US GAAP adjustments		-162	-185
Equity under US GAAP		**34 878**	**33 225**

Components of equity in accordance with US GAAP

	December 31, 2003 USD millions	December 31, 2002 USD millions

	December 31, 2003 USD millions	December 31, 2002 USD millions
Share capital	1 017	1 025
Treasury shares, at nominal value	-151	-158
Share premium	743	2 759
Retained earnings	31 069	29 976
Accumulated other comprehensive income:		
Currency translation adjustment	1 940	-237
Unrealized market value adjustment on available-for-sale securities, net of taxes of USD -62 million (2002: USD -6 million)	275	-253
Unrealized market value adjustment on cash-flow hedges, net of taxes of USD 7 million (2002: USD 30 million)	7	113
Minimum pension liability, net of taxes of USD 15 million	-22	
December 31	**34 878**	**33 225**

Changes in US GAAP equity

	2003 USD millions	2002 USD millions
January 1	**33 225**	**30 208**
Net unrealized market value adjustment	381	-502
Increase in share premium related to share-based compensation	373	17
Minimum pension liability	-22	
Associated companies' equity movement	10	-104
Foreign currency translation adjustment	2 735	4 158
Net income for the year under US GAAP	3 788	3 829
Dividends paid	-1 654	-1 305
Acquisition of treasury shares	-500	-3 076
Redemption of call and put options on Novartis shares	-3 458	
December 31	**34 878**	**33 225**

Notes to the US GAAP Reconciliation

a) Purchase accounting: Ciba-Geigy: The accounting treatment for the 1996 merger of Sandoz and Ciba-Geigy under IFRS is different from the accounting treatment under US GAAP. For IFRS purposes the merger was accounted under the uniting of interests method, however, for US GAAP the merger did not meet all of the required conditions of Accounting Principles Board Opinion No. 16 for a pooling of interests and therefore is accounted for as a purchase under US GAAP. Under US GAAP, Sandoz would be deemed to be the acquirer with the assets and liabilities of Ciba-Geigy being recorded at their estimated fair values and the results of Ciba-Geigy being included from December 20, 1996. Under US GAAP, the cost of Ciba-Geigy to Sandoz was approximately USD 28.5 billion. All of the purchase price was allocated to identified tangible and intangible assets with a definite useful life. There was therefore no residual goodwill arising from accounting for this transaction.

The components of the equity and income statement adjustments related to the US GAAP purchase accounting adjustment for 2003 and 2002 are as follows:

	2003 Components to reconcile		
	Net income USD millions	Foreign currency translation adjustment USD millions	Equity USD millions
Intangible assets related to marketed products	-478	472	4 121
Tangible fixed assets	51	-81	-714
Inventory		62	569
Other identifiable intangibles	-25	9	73
Investments		15	135
Deferred taxes	113	-120	-1 053
Total adjustment	**-339**	**357**	**3 131**

	2002 Components to reconcile		
	Net income USD millions	Foreign currency translation adjustment USD millions	Equity USD millions
Intangible assets related to marketed products	-414	708	4 127
Tangible fixed assets	44	-115	-684
Inventory		83	507
Other identifiable intangibles	-20	16	89
Investments		20	120
Deferred taxes	96	-179	-1 046
Total adjustment	**-294**	**533**	**3 113**

The intangible assets related to marketed products and other identifiable intangibles are being amortized over 15 and 10 years, respectively.

b) Purchase accounting: other acquisitions: Prior to January 1, 1995, the Group wrote off all goodwill, being the difference between the purchase price and the aggregate fair value of tangible and intangible assets and liabilities acquired in a business combination, directly to equity, in accordance with IFRS existing at that time. The adoption of IAS 22 (revised 1993) required that goodwill is capitalized and amortized, however, did not require prior period restatement. The material component of goodwill recorded directly to equity, under IFRS prior to January 1, 1995, related to the acquisition of Gerber Products in 1994. The net book value of goodwill under US GAAP attributable to Gerber Products was USD 2 870 million as of December 31, 2003 and 2002.

In accordance with IAS 22, the difference between the purchase price and the aggregate fair value of tangible and intangible assets and liabilities acquired in a business combination is capitalized as goodwill and amortized over its useful life, not to exceed 20 years. Under US GAAP, the difference between the purchase price and fair value of net assets acquired as part of a pre-1995 business combination is also capitalized as goodwill. Effective January 1, 2002, the Group adopted Statement of Financial Accounting Standards No. 142 (SFAS 142), *Goodwill and other Intangible Assets*. SFAS 142 requires that all goodwill and other intangible assets existing on implementation on January 1, 2002 are tested for impairment and thereafter are assessed for impairment on an annual basis. From January 1, 2002 goodwill and intangible assets deemed to have an indefinite useful life are no longer amortized on a regular basis. For the purpose of the reconciliation to US GAAP, goodwill was generally amortized through the income statement over an estimated useful life of 20 years up to December 31, 2001. Therefore, there is no amortization

charge in 2003 and 2002 under US GAAP.

In 2003, as a result of adverse changes in the operating environment of certain businesses, or of the decision to divest certain products, in accordance with SFAS 142, non-cash charges of USD 119 million were recorded (2002: USD 229 million) for impairments of goodwill and divestments. Gerber goodwill was also reviewed for potential impairments in 2003 however, this did not result in the Group needing to record a charge. The process of evaluating goodwill involves making judgments and estimates relating to the projection and discounting of future cash flows. This evaluation is sensitive to changes in the discount rate. An increase to discount rates is likely to result in a significant impairment charge under US GAAP.

Also included are US GAAP adjustments to the equity method accounting results of Roche and Chiron totaling USD 56 million (2002: USD 69 million). The impact of the additional impairment charges and the Roche and Chiron adjustments resulted in a USD 175 million charge in 2003 (2002: USD 298 million).

Note k (xi) provides further disclosure regarding impairment under US GAAP.

c) Purchase accounting: IFRS goodwill amortization: As described above, as of January 1, 2002, goodwill is no longer amortized but only subject to impairment testing under US GAAP. The corresponding reversal of the regular goodwill amortization under IFRS resulted in an additional income in the US GAAP reconciliation of USD 172 million (2002: USD 140 million).

d) Available-for-sale marketable securities and derivative financial instruments: Under IFRS, fair value changes which relate to the underlying movement in exchange rates on available-for-sale debt securities have to be recognized in the income statement. Under US GAAP, SFAS 133 requires the entire movement in the fair value of the securities to be recognized in equity, including any part that relates to foreign exchange movements. This resulted in US GAAP income being reduced by USD 228 million (2002: USD 53 million income).

Prior to the adoption of IAS 39 from January 1, 2001 in the IFRS consolidated financial statements, investments were stated at the lower of cost or market value on an individual basis. This results in a different amount of unrealized gains or losses being recorded in the separate component of equity under US GAAP compared to IFRS and an additional expense under US GAAP on disposal of available-for-sale securities during 2003 and 2002. This resulted in an additional expense of USD 12 million (2002: USD 326 million).

The above differences result in an additional US GAAP expense of USD 240 million in 2003 (2002: USD 273 million).

e) Pension provisions: Under IFRS, pension costs and similar obligations are accounted for in accordance with IAS 19, *Employee Benefits.* For purposes of US GAAP, pension costs for defined benefit plans are accounted for in accordance with SFAS 87 *Employers' Accounting for Pensions* and the disclosure is presented in accordance with SFAS 132 *Employers' Disclosures about Pensions and Other Post-retirement Benefits.* The version of IAS 19 in force up to December 31, 1998 required that the discount rate used in the calculation of benefit plan obligations was of an average long-term nature, whereas US GAAP required that the discount rate is based on a rate, at which the obligations could be currently settled. From January 1, 1999, IFRS and US GAAP accounting rules in this area are essentially the same, however, adjustments arise when reconciling from IFRS to US GAAP due to the pre-1999 accounting rule differences.

The following is a reconciliation of the balance sheet and income statement amounts recognized for IFRS and US GAAP for both pension and post-employment benefit plans:

	2003 USD millions	2002 USD millions
Pension benefits:		
Net asset recognized for IFRS	3 046	2 786
Difference in unrecognized amounts	1 314	1 196
Net asset recognized for US GAAP	**4 360**	**3 982**

	2003 USD millions	2002 USD millions
Net periodic (expense)/income recognized for IFRS	-54	139
Difference in amortization of actuarial amounts	-35	19
Net periodic pension benefit (expense)/income recognized for US GAAP	**-89**	**158**
Other post-employment benefits:		
Liability recognized for IFRS	-460	-421
Difference in unrecognized amounts	-105	-124
Liability recognized for US GAAP	**-565**	**-545**
Net periodic benefit expense recognized for IFRS	-63	-54
Difference in amortization of actuarial amounts	17	8
Net periodic post-employment benefit costs recognized for US GAAP	**-46**	**-46**
Total US GAAP income statement difference on pensions and other post-employment benefits	**-18**	**27**

f) Share-based compensation: The Group does not account for share-based compensation, as it is not required under IFRS. Under US GAAP, the Group applies Accounting Principles Board Opinion No. 25 (APB 25) *Accounting for Stock Issued to Employees* and related interpretations in accounting for its plans. As described in Note 26, the Group has several plans that are subject to measurement under APB 25. These include the Long-Term Performance Plan, the Leveraged Share Savings Plan, the old and new Swiss Employee Share Ownership Plans, the Restricted Share Plan and the US Management ADS Appreciation Cash Plan.

Compensation expense recognized under the Long-Term Performance Plan was USD 29 million for the year ended December 31, 2003 (2002: USD 14 million).

The Leveraged Share Savings Plan is considered to be compensatory based on the fair value of the allocated Novartis AG shares. The shares are blocked for a five year period, at which time the bonus taken in shares are matched on a one-for-one basis. Compensation expense recognized under this plan was USD 16 million for 2003 (2002: USD 11 million).

The new Swiss Employee Share Ownership Plan (ESOP) is considered to be compensatory based on the fair value of Novartis AG shares at a fixed date. Compensation expense recognized under this plan was USD 176 million for the year ended December 31, 2003 (2002: USD 80 million).

The old Swiss ESOP was considered to be compensatory based on the amount of the discount allowed for employee share purchases. Compensation expense was recorded at the grant date and was calculated as the spread between the share price and the strike price on that date. During 2002, the Group sold 406 448 shares to employees, which has resulted in a compensation expense of USD 13 million. The discount to the Group's share price was recorded in share premium. The percentage discount to the Group's share price under this plan was 75% in 2002, which was the last year, in which employees could purchase shares under this scheme.

The Restricted Share Plan is considered to be compensatory based on the strike price for the underlying instruments, which is zero at the date of grant. Compensation expense is recorded at the grant date and is calculated as the number of instruments granted, multiplied by the share price on that date. Compensation expense recognized under this Plan was USD 5 million for the year ended December 31, 2003 (2002: USD 4 million).

The US Management ADS Appreciation Cash Plan is considered to be variable because the final benefit to employees depends on the Group's share price at the exercise date. Compensation expense is recorded at each balance sheet date by estimating the number of rights outstanding multiplied by the spread between the share price on the balance sheet date and the strike price. Compensation expense for this plan was USD 47 million for 2003 (2002: USD 2 million income). This plan was supplemented in 2001 by the US ADS Incentive Plan which grants options on Novartis ADSs. Disclosures relating to this Plan is included in note k (vii).

The total US GAAP expense of the above items is as follows:

	2003 USD millions	2002 USD millions
Long-Term Performance Plan	29	14
Leveraged Share Savings Plan	16	11
New Swiss ESOP Plan	176	80
Old Swiss ESOP Plan		13
Restricted Share Plan	5	4
ADS Appreciation Cash Plan	47	-2
Total US GAAP additional compensation expense	**273**	**120**

g) Consolidation of share-based compensation foundation: The Group has an employee share participation foundation that settles the obligations of the Group's share-based compensation plans that is not required to be consolidated for IFRS. However, this foundation is consolidated under US GAAP.

The consolidation of this foundation reduces net income by USD 3 million (2002: USD 20 million) and US GAAP equity by USD 728 million (2002: USD 489 million).

h) Deferred taxes: Under IAS 12 (revised) and US GAAP, unrealized profits resulting from intercompany transactions are eliminated from the carrying amount of assets, such as inventory. In accordance with IAS 12 (revised) the Group calculates the tax effect with reference to the local tax rate of the company that holds the inventory (the buyer) at period-end. However, US GAAP requires that the tax effect is calculated with reference to the local tax rate in the seller's or manufacturer's jurisdiction.

i) In-process research and development (IPR&D): Under US GAAP, IPR&D is considered to be a separate asset that needs to be written-off immediately following the acquisition as the feasibility of the acquired research and development has not been fully tested and the technology has no alternative future use. IFRS does not consider that IPR&D is an intangible asset that can be separately recognized, accordingly it is recognized in goodwill.

During 2003, IPR&D has been identified for US GAAP purposes in connection with acquisitions, principally the acquisition of 51% of the shares of Idenix. All projects of Idenix are under research or development, therefore the full goodwill recorded under IFRS amounting to USD 297 million was considered as IPR&D under US GAAP.

IPR&D recognized on other acquisitions amounted to USD 39 million in 2003. During 2002, IPR&D arose on the acquisitions of a further 11.4% of the voting shares of Roche (USD 123 million), of 99% of the shares of Lek (USD 84 million), and of others (USD 17 million).

The income booked for the reversal of the amortization of IPR&D recorded under IFRS as a component of goodwill amortization amounted to USD 76 million (2002: USD 213 million). The total net IPR&D expense for 2003 was USD 260 million (2002: USD 11 million).

The impact of IPR&D reduced US GAAP equity by USD 1 338 million (2002: USD 984 million).

j) Other: There are also differences between IFRS and US GAAP in relation to (1) capitalized interest and capitalized software, (2) accretion on convertible debentures, (3) LIFO inventory and (4) minimum pension liability. None of these differences are individually significant and they

are therefore shown as a combined total.

k) Additional US GAAP disclosures:

i) Financial assets and liabilities

Apart from the following exceptions, the US GAAP carrying value of financial assets and liabilities is equal to the IFRS carrying values.

ii) Cash, cash equivalents and time deposits

	2003 USD millions	2002 USD millions
Carrying value of cash and cash equivalents under IFRS	5 646	5 798
Carrying values of time deposits under IFRS (note 16)	651	767
Change due to consolidation of share-based compensation foundation under US GAAP	-650	-622
Total under US GAAP	**5 647**	**5 943**

iii) Marketable securities

	2003 USD millions	2002 USD millions
Carrying values of marketable securities under IFRS (note 16)	6 134	5 496
Carrying values of other investments under IFRS	1 076	896
Marketable securities in share-based compensation foundation consolidated under US GAAP	16	129
Total under US GAAP	**7 226**	**6 521**

The components of available-for-sale marketable securities under US GAAP at December 31, 2003 and 2002 are the following:

	Cost USD millions	Gross unrealized gains USD millions	Gross unrealized losses USD millions	Carrying value and estimated fair value USD millions
As at December 31, 2003				
Available-for sale-securities:				
Equity securities	1 744	209	-293	1 660
Debt securities	5 299	270	-3	5 566
Total	**7 043**	**479**	**-296**	**7 226**
As at December 31, 2002				
Available-for-sale securities:				
Equity securities	2 022	212	-571	1 663

	Cost USD millions	Gross unrealized gains USD millions	Gross unrealized losses USD millions	Carrying value and estimated fair value USD millions
Debt securities	4 797	91	-30	4 858
Total	**6 819**	**303**	**-601**	**6 521**

Proceeds from sales of available-for-sale securities were USD 6 293 million and USD 6 086 million in 2003 and 2002 respectively. Gross realized gains were USD 199 million and USD 266 million on those sales in 2003 and 2002 respectively. Gross realized losses were USD 115 million and USD 648 million on those sales in 2003 and 2002 respectively. The cost used to determine the gain or loss on these sales was calculated using the weighted average method. As at December 31, 2003 USD 258 million of gross unrealized losses of equity securities existed for more than 12 months.

The maturities of the available-for-sale debt securities included above at December 31, 2003 are as follows:

	2003 USD millions
Within one year	34
Over one year through five years	4 447
Over five years through ten years	629
Over ten years	456
Total	**5 566**

iv) Derivative financial instruments: In 2003 there were no gains and losses recognized in accordance with US GAAP on options settled in Novartis shares that require a net cash settlement (2002: USD 123 million of gains).

v) Non-derivative financial instruments: The US GAAP carrying values are equivalent to the IFRS carrying values for all non-derivative financial assets and liabilities. Non-derivative financial assets consist of cash and cash equivalents, time deposits, and marketable securities. Non-derivative liabilities consist of commercial paper, bank or other short-term financial debts, and long-term debt.

The carrying amount of cash and cash equivalents, time deposits, commercial paper, and bank and other short-term financial debts approximates their estimated fair values due to the short-term nature of these instruments. The fair values of marketable securities are estimated based on listed market prices or broker or dealer price quotes. The fair value of long-term debt is estimated based on the current quoted market rates available for debt with similar terms and maturities.

The estimated fair values of the long and short-term financial debt are provided in notes 18 and 20 to the IFRS consolidated financial statements.

vi) Earnings per share: As discussed in item (g) above, in the past, the Group established the Novartis Foundation for Employee Participation to assist the Group in meeting its obligations under various employee benefit plans and programs. This Foundation supports existing, previously approved employee benefit plans.

For US GAAP purposes, the Group consolidates this Foundation. The cost of Novartis AG shares held by the Foundation is shown as a reduction of shareholders' equity in the Group's US GAAP balance sheet.

Any dividend transactions between the Group and the Foundation are eliminated, and the difference between the fair value of the shares on the date of contribution to the Foundation and the fair values of the shares at December 31, is included in consolidated retained earnings. Shares held in the Foundation are not considered outstanding in the computation of US GAAP earnings per share. The consolidation of this entity had the following impact on basic and diluted earnings per share:

Basic earnings per share	2003	2002
Net income under US GAAP (USD millions)	**3 788**	**3 829**
Weighted average number of shares in issue under IFRS	2 473 522 565	2 515 311 685
Weighted average number of treasury shares due to consolidation of the employee share participation foundation under US GAAP	-93 430 809	-97 164 490
Weighted average number of shares in issue under US GAAP	**2 380 091 756**	**2 418 147 195**
Basic earnings per share under US GAAP (USD)	**1.59**	**1.58**

Diluted earnings per share	2003	2002
Net income under USGAAP (USD millions)	3 788	3 829
Elimination of interest expense on convertible debt (net of tax effect)		3
Net income used to determine diluted earnings per share	**3 788**	**3 832**
Weighted average number of shares in issue under IFRS	2 473 522 565	2 515 311 685
Call options on Novartis shares	27 446 092	54 891 036
Adjustment for other dilutive share options	4 346 940	2 264 236
Weighted average number of treasury shares due to consolidation of the employee share participation foundation under US GAAP	-93 430 809	-97 164 490
Weighted average number of shares for diluted earnings per share under US GAAP	**2 411 884 788**	**2 475 302 467**
Diluted earnings per share under US GAAP (USD)	**1.57**	**1.55**

vii) Pro forma earnings per share: Statement of Financial Accounting Standards No. 123 (SFAS 123) *Accounting for Stock-Based Compensation* established accounting and disclosure requirements using a fair-value based method of accounting for share-based employee compensation. Had the Group accounted for share options in accordance with SFAS 123, net income and earnings per share would have been the pro forma amounts indicated below:

	2003	2002
Net income under US GAAP (USD millions):		
As reported	3 788	3 829
Stock-based employee compensation cost included in the determination of net income	273	120
Stock-based employeee compensation cost that would have been included in the determination of net income if the fair value based method had been applied to all awards	-459	-210
Pro forma	3 602	3 739
Earnings per share (USD):		
As reported:		
Basic	1.59	1.58
Diluted	1.57	1.55
Pro forma:		

	2003	2002
Basic	1.51	1.55
Diluted	1.49	1.51

The weighted average assumptions used in determining the fair value of option grants were as follows:

	2003	2002
Dividend yield	1.8%	1.8%
Expected volatility	24.0%	24.0%
Risk-free interest rate	4.0%	4.0%
Expected life	9 yrs	9 yrs

These pro forma effects may not be representative of future amounts since the estimated fair value of share options on the date of grant is amortized to expense over the vesting period and additional options may be granted in future years.

viii) Deferred tax: The deferred tax asset less valuation allowance at December 31, 2003 and 2002 comprises USD 1 590 million and USD 1 074 million of current assets and USD 987 million and USD 630 million of non-current assets respectively. The deferred tax liability at December 31, 2003 and 2002 comprises USD 1 202 million and USD 954 million of current liabilities and USD 3 935 million and USD 3 208 million of non-current liabilities respectively.

(ix) Employee benefit plans: The disclosures required by US GAAP are different from those provided under IFRS. The following provides a reconciliation of benefit obligations, plan assets and funded status of the plans.

	Pension benefits		Other post-employment benefits	
	2003 USD millions	2002 USD millions	2003 USD millions	2002 USD millions
Plan assets at fair value January 1	**14 365**	**13 914**		
Actual return on plan assets	916	-1 173		
Foreign currency translation	1 506	2 283		
Employer contributions	92	83		
Employee contributions	39	6		
Plan amendments		11		
Benefit payments	-790	-759		
December 31	**16 128**	**14 365**		
Benefit obligation				
January 1	**11 845**	**11 087**	**645**	**504**
Service cost	285	277	19	14
Interest cost	559	552	40	36
Actuarial (gain) loss	695	-1 108	85	131
Plan amendments	15	12	-31	-2
Foreign currency translation	1 256	1 784	2	
Benefit payments	-790	-759	-40	-38
December 31	**13 865**	**11 845**	**720**	**645**
Funded status	**2 263**	**2 520**	**-720**	**-645**

	Pension benefits		Other post-employment benefits	
Unrecognized actuarial (gain) loss	2 146	1 462	204	100
Unrecognised past service costs	-49		-49	
December 31 Prepaid (accrued) benefit costs	**4 360**	**3 982**	**-565**	**-545**
Prepaid benefit costs	5 333	4 704		
Accrued benefit liability	-973	-722	-565	-545
December 31 Net amount recognized in the balance sheet	**4 360**	**3 982**	**-565**	**-545**
Benefit expense				
Service cost	285	277	19	14
Interest cost	559	552	40	36
Past service costs	27		7	
Expected return on plan assets	-796	-970		
Employee contributions	-39	-7		
Amortization of actuarial (gain) loss	53	-10	-20	-4
Net periodic benefit (income)/expense	**89**	**-158**	**46**	**46**
Weighted-average assumptions as at December 31	**%**	**%**	**%**	**%**
Discount rate	4.6	4.5	6.3	6.8
Rate of payroll indexation	2.8	2.8		
Expected return on plan assets	5.6	6.1		

The assumed health care cost trend rate at December 31, 2003 was 9%, decreasing to 4.75% in 2012. The assumed health care cost trend rate at December 31, 2002 was 10%, decreasing to 4.75% in 2006 and thereafter. A one-percentage-point change in the assumed health care cost trend rates compared to those used for 2003 would have the following effects:

	1% point increase USD millions	1% point decrease USD millions
Effects on total of service and interest cost components	9	-7
Effect on post-employment benefit obligations	81	-68

On December 23, 2003, the Financial Accounting Standards Board ("FASB") issued Statement of Financial Accounting Standards No. 132 (revised 2003), *Employers' Disclosures about Pensions and Other Post-retirement Benefits, an amendment of FASB Statements No. 87, 88 and 106, and a revision of FASB Statement No. 132*. This requires the following additional information for the Swiss defined benefit plan:

Plan assets

Novartis Swiss defined benefit plan asset weighted-average allocations at December 31, 2003, and 2002 and 2004 target allocations by asset category are as follows:

Asset Category	Percentage of Plan Assets

	Target Allocation 2004 %	Percentage of Plan Assets 2003 %	Percentage of Plan Assets 2002 %
Equity securities	25	15	27
Debtsecurities	57	63	56
Real estate	10	10	10
Cash and cash equivalents	8	12	7
Total	**100**	**100**	**100**

Long-term policy targets are set by the Novartis Investment Committee. Based upon current market and economic environments, actual asset allocation may periodically deviate from policy targets as determined by the Investment Committee.

Plan assets, benefit obligation and funded status of the Swiss defined benefit plan at December 31, 2003 and 2002

	2003 USD millions	2002 USD millions
Plan assets at fair value January 1	**11 771**	**11 164**
Actual return on plan assets	571	-986
Foreign currency translation	1 451	2 190
Employee contributions	29	2
Benefit payments	-604	-599
December 31	**13 218**	**11 771**
Benefit obligation at January 1	**8 569**	**8 173**
Service cost	137	139
Interest cost	358	379
Actuarial (gain)/loss	240	-1 126
Foreign currency translation	1 093	1 603
Benefit payments	-604	-599
December 31	**9 793**	**8 569**
Funded Status	**3 425**	**3 202**
Unrecognized actuarial (gain)/loss	1 285	851
December 31 Prepaid benefit recognized in the balance sheet	**4 710**	**4 053**
Total accumulated benefit obligations	8 248	7 302

Cash Flows

Novartis does not expect to contribute to its Swiss defined benefit plan in 2004 (nil in 2003 and 2002).

Estimated future benefit payments

The following benefit payments, which reflect expected future service, as appropriate, are expected to be paid:

Year	USD millions
2004	600
2005	587
2006	575
2007	563
2008	558
2009 2013	2 738

Assumptions

The following are the principal actuarial assumptions, used for calculating the 2003 and 2002 income statement amounts and the above stated December 31, 2003 and 2002 funded status of the Swiss defined benefit plans:

	Income statement		Funded status	
Weighted average %	2003 %	2002 %	2003 %	2002 %
Discount rate	4.00	4.00	3.75	4.00
Payroll indexation	2.50	2.50	2.50	2.50
Return on assets	5.00	5.50	5.00	5.50

The overall expected long-term return on plan assets was determined based on outside published and internal capital market forecasts for each asset class. The measurement date used to determine pension benefit measurements for the Swiss defined benefit plan was December 31, 2003.

(x) Foreign currency translation: The Group has accounted for operations in highly inflationary economies in accordance with IAS 21 (revised) and IAS 29. The accounting under IAS 21 (revised) and IAS 29 complies with Item 18 of Form 20-F and is different from that required by US GAAP.

(xi) Adoption of SFAS 142: On January 1, 2002, the Group adopted the provisions of SFAS 142, *Goodwill and Other Intangible Assets*. Under the provisions of SFAS 142, intangible assets with indefinite lives and goodwill are no longer amortized, but are subject to annual impairment tests. Separable intangible assets with definite lives continue to be amortized over their useful lives. Goodwill is the only intangible asset within the Group, which is not subject to amortization under US GAAP.

All goodwill components were tested for impairment during 2003. The fair values of the businesses were determined using the expected present values of future cash flows.

The Group estimates that the aggregate amortization expense for intangibles subject to amortization for each of the five succeeding financial years will not materially differ from the current aggregate amortization expense.

The changes in the carrying amount of goodwill for the years ended December 31, 2003 and 2002 are as follows:

	Pharmaceuticals Division	Consumer Health Division	Corporate USD millions	Total USD millions

	USD millions	USD millions		
January 1, 2002	**404**	**3 809**	**6**	**4 219**
Additions		534		534
Impairment losses	-345	-30	-6	-381
Goodwill written off related to disposal of businesses		-40		-40
Consolidation changes	-10	54		44
Translation effects	18	72		90
December 31, 2002	**67**	**4 399**		**4 466**
Additions		7		7
Reclassification to separately identified intangible assets		-423		-423
Impairment losses	-12	-179		-191
Goodwill written off related to disposal of businesses	-35	-5		-40
Translation effects	2	116		118
December 31, 2003	**22**	**3 915**		**3 937**

(xii) Effect of New Accounting Pronouncements: International Financial Reporting Standards: In December 2003, the IASB released revised IAS 32, *Financial Instruments: Disclosure and Presentation* and IAS 39, *Financial Instruments: Recognition and Measurement*. These standards replace IAS 32 (revised 2000), and supersedes IAS 39 (revised 2000), and should be applied for annual periods beginning on or after January 1, 2005. The amendments are not expected to have a material impact on the Group's consolidated financial statements.

In December 2003, as a part of the IASB's project to improve International Accounting Standards, the IASB released revisions to the following standards that supersede the previously released versions of those standards: IAS 1, *Presentation of Financial Statements*; IAS 2, *Inventories*; IAS 8, *Accounting Policies, Changes in Accounting Estimates and Errors*; IAS 10, *Events after Balance Sheet Date*; IAS 16, *Property, Plant and Equipment*; IAS 17, *Leases*; IAS 21, *The Effects of Changes in Foreign Exchange Rates*; IAS 24, *Related Party Disclosures*; IAS 27, *Consolidated and Separate Financial Statements*; IAS 28, *Investments in Associates*; IAS 31, *Interests in Joint Ventures*; IAS 33, *Earnings per Share* and IAS 40, *Investment Property*. The revised standards should be applied for annual periods beginning on or after January 1, 2005. The amendments are not expected to have a material impact on the Group's consolidated financial statements.

(xiii) Effect of New Accounting Pronouncements: US GAAP: In January 2003, the Emerging Issues Task Force (EITF) issued EITF 00-21, *Accounting for Reserve Arrangements with Multiple Deliverables*. EITF 00-21 addresses the issues of (1) how to determine whether an arrangement involving multiple deliverables contains more than one unit of accounting and (2) how arrangement consideration should be measured and allocated to the separate units of accounting in the arrangement. EITF 00-21 does not change otherwise applicable revenue recognition criteria. EITF 00-21 is effective for revenue arrangements entered into in financial periods beginning after June 15, 2003. EITF 00-21 had no impact on the Group's consolidated financial position or results of operations.

In April 2003, the FASB issued Statement of Financial Accounting Standards No. 149 (SFAS 149) *Amendment of Statement 133 on Derivative Instruments and Hedging Activities*. SFAS 149 amends and clarifies financial accounting and reporting for derivative instruments and for hedging activities under *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133). The adoption of SFAS 149 did not have a material impact on the Group's consolidated results of operation or financial position.

In May 2003, the FASB issued SFAS 150, *Accounting for Certain Financial Instruments with Characteristics of both Liabilities and Equity*. SFAS 150 establishes standards for how an issuer classifies and measures certain financial instruments with characteristics of both liabilities and equity. The adoption of SFAS 150 did not have a material impact on the Group's consolidated results of operation or financial position.

In December 2003, the *Medicare Prescription Drug, Improvements and Modernization Act of 2003* (the Medicare Act) was approved in the United States. The Medicare Act provides for two new prescription drug benefit features under Medicare. The Group provides post-retirement benefits to its United States employees, the benefits provided are impacted by the Medicare Act. SFAS 106, *Employers' Accounting for Post-retirement Benefits Other Than Pensions*, requires that enacted changes in the law that take effect in future periods and that will affect the future level of benefit coverage be considered in the current period measurements for benefits expected to be provided in those future periods. In response to the Medicare Act and the requirements of SFAS 106, the Financial Accounting Standards Board (FASB) released FASB Staff Position No. 106-1 *Accounting and Disclosure Requirements Related to the Medicare Prescription Drug, Improvement and Modernization Act of 2003* (FSP 106-1).

FSP 106-1 provides a one-time election to defer accounting for the effects of the Medicare Act until further guidance on the accounting for the new Medicare features is released. The Group has elected to defer the accounting for the effects of the Medicare Act. Accordingly, the Group's consolidated financial statements and the accompanying notes as of and for the year ended December 31, 2003 do not reflect the effects of the Medicare Act. Further guidance, when issued, could require the Group to change previously reported information.

FIN 46 *Consolidation of Variable Interest Entities* is effective for Novartis starting January 1, 2004. The Group is in the process of assessing what impact this pronouncement will have on its consolidated financial statements when adopted. Based on a preliminary analysis of the impact of FIN 46, the Group has concluded the impact on the consolidated financial statements is not expected to be material.

Report of the Auditors on the Novartis Group Consolidated Financial Statements

To the General Meeting of Novartis AG, Basel

As auditors of the Group, we have audited the consolidated financial statements (balance sheet, income statement, cash flow statement, statement of changes in equity and notes) of the Novartis Group for the year ended December 31, 2003.

These consolidated financial statements are the responsibility of the Board of Directors. Our responsibility is to express an opinion on these consolidated financial statements based on our audit. We confirm that we meet the legal requirements concerning professional qualification and independence.

Our audit was conducted in accordance with auditing standards promulgated by the Swiss profession and with International Standards on Auditing, which require that an audit be planned and performed to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement. We have examined on a test basis evidence supporting the amounts and disclosures in the consolidated financial statements. We have also assessed the accounting principles used, significant estimates made and the overall consolidated financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position, the results of operations and the cash flows in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

J. G. Kaiser D. Suter
Basel, January 20, 2004

Financial Statements of Novartis AG

Income Statements

(for the years ended December 31, 2003 and 2002)

	2003 CHF millions	2002 CHF millions
Income		
Income from financial assets	3 038	5 779
Income from marketable securities, cash and short-term deposits	457	261
Gain from divestment of subsidiaries		103
Gain from disposal of intangible assets	256	215
License fees from subsidiaries	460	384
Other income	44	28
Total income	**4 255**	**6 770**
Expenses		
Financial expenses	-132	-94
Administrative expenses	-11	-6
Changes to provisions and value of financial assets	-12	-14
Other expenses	-50	-16
Taxes	-110	-62
Total expenses	**-315**	**-192**
Net income	**3 940**	**6 578**

Proposal for the Appropriation of Available Earnings

	2003 CHF	2002 CHF
Available unappropriated earnings		
Balance brought forward		
Net income of the year	3 939 921 749	6 577 671 070
Total available earnings	**3 939 921 749**	**6 577 671 070**
Appropriation		
Payment of a dividend of CHF 1.00 (2002: CHF 0.95) gross on 2 526 705 981 (2002: 2 547 080 981) dividend bearing shares with a nominal value of CHF 0.50 each	-2 526 705 981	-2 419 726 932

	2003 CHF	2002 CHF
Transfer to free reserves	-1 413 215 768	-4 157 944 138
Balance to be carried forward		

Balance Sheets (prior to profit appropriation)

(at December 31, 2003 and 2002)

	Notes	2003 CHF millions	2002 CHF millions
Assets			
Financial assets	3	12 665	12 541
Total long-term assets		**12 665**	**12 541**
Current assets			
Receivables from			
subsidiaries		2 862	3 340
others		37	124
Marketable securities	4	1 977	2 269
Cash and short-term deposits		1 269	200
Total current assets		**6 145**	**5 933**
Total assets		**18 810**	**18 474**
Equity and liabilities			
Equity			
Total share capital	5	**1 401**	**1 412**
Reserves			
Legal reserves	6		
General reserve		642	289
Reserve for treasury shares		9 483	9 321
Free reserves	7	2 603	34
Total reserves		**12 728**	**9 644**
Unappropriated earnings			
Net income of the year		3 940	6 578
Total unappropriated earnings		**3 940**	**6 578**
Total equity		**18 069**	**17 634**

	Notes	2003 CHF millions	2002 CHF millions
Liabilities			
Provisions		572	709
Accounts payable and accrued liabilities			
subsidiaries		49	53
others		120	78
Total liabilities		**741**	**840**
Total equity and liabilities		**18 810**	**18 474**

The notes form an integral part of these unconsolidated financial statements

Notes to the Financial Statements of Novartis AG

1. Introduction

The financial statements of Novartis AG comply with the requirements of the Swiss law for companies, the Code of Obligations (SCO).

2. Accounting policies

Exchange rate differences: Current assets denominated in foreign currencies are converted at year end exchange rates. Exchange differences arising from these as well as those from business transactions are recorded in the income statement.

Financial assets: These are valued at acquisition cost less adjustments for impairment of value.

Marketable securities: These are valued at the lower of cost and market value.

Provisions: Provisions are made to cover general business risks of the Group.

3. Financial assets

Included in financial assets are CHF 10 136 million (2002: CHF 10 009 million) of investments in subsidiaries and CHF 2 529 million (2002: CHF 2 532 million) of loans to subsidiaries and other related entities.

The principal direct and indirect subsidiaries and other holdings of Novartis AG are shown on pages 190 195.

4. Marketable securities

Included in marketable securities are treasury shares with a net book value of CHF 1 974 million (2002: CHF 2 230 million) (see 5 and 6 below).

5. Share capital

	Number of shares			
December 31, 2001	Movement in year	December 31, 2002	Movement in year	December 31, 2003

	Number of shares				
Total Novartis AG shares	**2 885 204 680**	**-61 054 680**	**2 824 150 000**	**-22 680 000**	**2 801 470 000**
Treasury shares					
Treasury shares held by Novartis AG	190 982 300	-36 474 300	154 508 000	-9 220 000	145 288 000
Treasury shares held by subsidiaries	72 631 680	49 929 339	122 561 019	6 915 000	129 476 019
Total treasury shares	**263 613 980**	**13 455 039**	**277 069 019**	**-2 305 000**	**274 764 019**

The Novartis AG share capital consists of registered shares with a nominal value of CHF 0.50 each.

The total share capital reduced from CHF 1 412.1 million at December 31, 2002 to CHF 1 400.7 million at December 31, 2003 due to a share capital reduction and subsequent cancellation of 22 680 000 shares with a nominal value of CHF 11 340 000 approved at the Annual General Meeting of March 4, 2003 which became effective on July 3, 2003. The total share capital reduced from CHF 1 442.6 million at December 31, 2001 to CHF 1 412.1 million at December 31, 2002 due to a share capital reduction and subsequent cancellation of 61 054 680 shares with a nominal value of CHF 30 527 340 approved at the Annual General Meeting of March 21, 2002 which became effective on July 8, 2002. Treasury share purchases totaled 31.2 million (2002: CHF 85.5 million) with an average purchase price per share of CHF 52 (2002: CHF 64) and treasury share sales totaled 10.8 million (2002: CHF 11.0 million) with an average sales price per share of CHF 53 (2002: CHF 54).

The number of treasury shares held by the Company and subsidiaries meet the definitions and requirements of Art. 659b SCO. The 274 764 019 treasury shares held at December 31, 2003 are non-dividend bearing.

Novartis Group's consolidated financial statements comply with IFRS SIC Interpretation No. 12. This requires consolidation of entities which do not qualify as subsidiaries in the sense of Article 659b SCO.

6. Legal reserve

General reserve

	2003 CHF millions	2002 CHF millions
January 1	**289**	**289**
Increase due to sale of treasury shares	353	
December 31	**642**	**289**

Reserve for treasury shares held by the Group

	2003 CHF millions	2002 CHF millions

	2003 CHF millions	2002 CHF millions
January 1	**9 321**	**8 568**
Reduction due to cancellation of treasury shares (CHF 1 438 million, 2002: CHF 4 000 million, of repurchased shares less their nominal value of CHF 11 million, 2002: CHF 31 million)	-1 427	-3 969
Transfer from free reserves	1 589	4 722
December 31	**9 483**	**9 321**

The general reserve must be at least 20% of the share capital of Novartis AG as this is the minimum amount required by the SCO.

Novartis AG has met the legal requirements for legal reserves under Articles 659 et. seq. and 663b.10 SCO for treasury shares detailed in note 5.

7. Free reserves

	2003 CHF millions	2002 CHF millions
January 1	**34**	**3 122**
Transfer from unappropriated earnings	4 158	1 634
Transfer to reserve for treasury shares	-1 589	-4 722
December 31	**2 603**	**34**

8. Contingent liabilities

	Outstanding liabilities December 31, 2003 CHF millions	Outstanding liabilities December 31, 2002 CHF millions
Guarantees to cover capital and interest of bonds, commercial paper and the Euro medium-term note program total maximum amount CHF 7 602 million (2002: CHF 7 290 million)	4 474	4 889
Guarantees in connection with options on Novartis AG shares[(1)] total maximum amount in 2002: CHF 4 239 million		4 239
Guarantees in favor of group companies, associated companies and others total maximum amount CHF 502 million (2002: CHF 622 million)	298	331
Total	**4 772**	**9 459**

(1) Represents the amounts that Novartis AG guaranteed in respect of subsidiary obligations regarding the 55 million call options (Low Exercise Price Options LEPOs) and 55 million put options issued on its shares. The call and put options were redeemed on June 26,

2003.

9. Registration, voting restrictions and major shareholders

The Company's Articles of Incorporation state that no person or entity shall be registered with the right to vote for more than 2% of the share capital as set forth in the Commercial Register. In particular cases the Board of Directors may allow exemptions from the limitation for registration in the share register.

As far as can be ascertained from the information available, shareholders owning 2% or more of the Company's capital at December 31 are as follows:

	% holding of share capital December 31, 2003	% holding of share capital December 31, 2002
Novartis Foundation for Employee Participation, Basel	3.3	3.3
Emasan AG, Basel	3.1	3.1

Report of the Auditors on the Novartis AG Financial Statements

To the General Meeting of Novartis AG, Basel

As statutory auditors, we have audited the accounting records and the financial statements (balance sheet, income statement and notes) of Novartis AG, Basel, for the year ended December 31, 2003.

These financial statements are the responsibility of the Board of Directors. Our responsibility is to express an opinion on these financial statements based on our audit. We confirm that we meet the legal requirements concerning professional qualification and independence.

Our audit was conducted in accordance with auditing standards promulgated by the Swiss profession, which require that an audit be planned and performed to obtain reasonable assurance about whether the financial statements are free from material misstatement. We have examined on a test basis evidence supporting the amounts and disclosures in the financial statements. We have also assessed the accounting principles used, significant estimates made and the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the accounting records and financial statements and the proposed appropriation of available earnings comply with Swiss law and the Company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

J. G. Kaiser H. Plozza
Basel, January 20, 2004

Key Dates for 2004

Anticipated key reporting dates

Annual General Meeting for the financial year 2003	February 24, 2004
First Quarter 2004 (sales and results)	April 22, 2004
First Half 2004 (year to date and second quarter sales and results)	July 20, 2004
Third Quarter 2004 (year to date and third quarter sales and results)	October 21, 2004
Full Year 2004 (year to date and fourth quarter sales and results)	January 2005

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Equally, we would like to thank everyone who contributed to this report by sharing personal experience and knowledge with us.

Forward-Looking Statement Disclaimer

This Annual Report contains certain "forward-looking statements" within the meaning of the Securities Act of 1933 and the Securities Exchange Act of 1934 of the United States. These forward looking statements relate to our business and the business segments in which we and our subsidiaries and interests operate. Many of these statements can be identified by the use of forward-looking terminology such as "believe", "expect", "may", "are expected to", "will", "will continue", "should", "would be", "seek" or "anticipate" or similar expressions, or by discussions of strategy, plans or intentions. These statements include descriptions of our investment and research and development programs, descriptions of new products we expect to introduce and anticipated customer demand for our products. The forward-looking statements made in this Annual Report reflect our current views with respect to future events and are subject to certain risks, uncertainties and assumptions. Many factors could cause our actual results, performance or achievements to be materially different from any future results, performances or achievements that may be expressed or implied by these statements. Some of these factors include inability to discover and register new products, competition in general, loss of patent protection, price controls, product liability claims, exposure to environmental liabilities, interruption of supply and foreign exchange risks. For a more detailed description of the risks facing our Group, we encourage you to review the Form 20-F filed with the United States Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this Annual Report as anticipated, believed, estimated or expected. We do not intend, and do not assume any obligation, to update any industry information or forward-looking statements set out in this Annual Report. All product names printed in italics in this Annual Report are trademarks of the Novartis Group.

® in combination with products in normal script indicate third party brands. The business policy of Novartis takes into account the OECD's Guidelines for Multinational Enterprises, with their recommendations on the disclosure of information.

Our Annual Report is originally published in English, with French and German versions available.

Published by Novartis International AG, Basel, Switzerland

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

NOVARTIS AG

Date: February 6, 2004

By: /s/ MALCOLM B. CHEETHAM

Name: Malcolm B. Cheetham
Title: *Head Group Financial Reporting and Accounting*

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